Division 1:

General Conditions

For

2020 Pavement Marking Program

OWNERS:

ELKHART COUNTY, INDIANA, ACTING THROUGH ITS BOARD OF COUNTY COMMISSIONERS ELKHART COUNTY HIGHWAY DEPARTMENT ENGINEERING SECTION 610 STEURY AVENUE GOSHEN, IN 46528



Elkhart County Highway Department 610 Steury Avenue, Goshen, Indiana 46528 Phone: 574-534-9394 • Fax: 574-533-7103

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DEFINITIONS

The following terms, as used in these Contract Documents, are defined as follows:

"ADDENDA" Written or graphic instruments issued prior to the

opening of Bids, which clarify, correct, or change the

bidding documents or Contract Documents.

"APPROVED" The words "approved", "acceptable", "satisfactory", "in

the judgment of", and words of like import, shall mean approval by, acceptable to, satisfactory to, or in the

judgment of, the Engineer or Owner.

"BONDS" Bid, Performance, or Maintenance Bonds, and other

instruments of security.

"CHANGE ORDER" A document recommended by ENGINEER, which is

signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of

the Agreement.

"CONTRACTOR' The person, firm, or corporation to whom the

enclosed contract is awarded by the Owner and who

is subject to the terms hereof.

"COUNTY

SPECIFICATIONS" The current Elkhart County roads guidelines and

standards for design and public improvements.

"DIRECTED" The words "directed", "required", "permitted",

"ordered", "designated", and words of like import shall imply the direction, requirement, and permission,

order of designation of the Engineer or Owner.

"ENGINEER" The Elkhart County Highway Division, or, the Elkhart

Co. Manager of Engineering, or duly authorized

representative designated by the Owner.

"FIELD ORDER" A written order issued by ENGINEER which orders

minor changes in the Work in accordance with paragraph 7.5 but which does not involve a change in

the Contract Price or the Contract Time.

"GENERAL REQUIREMENTS" Sections of Division A of the Specifications.

"LAWS AND REGULATIONS; Laws, rules, regulations, ordinances, codes LAWS OR REGULATIONS" and/or orders.

"MUTCD"`

Manual of uniform traffic control devices.

"NOTICE TO PROCEED"

A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR'S obligations under the Contract Documents.

"OWNER"

The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided. This typically being Elkhart County, Indiana, acting through its Board of County Commissioners.

"PARTIAL UTILIZATION"

Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

"PREP COST"

The total cost for all work preparing and completing all work for new road surface through the milling or grinding process as outlined in DIVISION 3.

"PROJECT"

The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

"RESIDENT PROJECT REPRESENTATIVE" The authorized representative of ENGINEER who is assigned to the site or any part thereof

"SHOP DRAWINGS"

All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

"SPECIFICATIONS"

Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

"STANDARD **DETAILS**" "STANDARD The current INDOT standard sheets with standard

details.

SPECIFICATIONS"

The Indiana Department of Transportation 2020 Standard Specifications and current Technical

Specifications.

"STOP ORDER or STOP WORK ORDER

Written order from OWNER or ENGINEER to stop all

work covered by the Contract Documents.

"SUPPLEMENTARY CONDITIONS"

The part of the Contract Documents which

amends or supplements these General Conditions.

"SUBCONTRACTOR"

An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the

Work at the site.

"SURETY"

Financial guarantee that insures the CONTRACTORS

obligation.

"UNDERGROUND FACILITIES"

pipelines, conduits. ducts. cables. ΑII wires. manholes, vaults, tanks, tunnels or other such facilities or attachments. In addition, any encasement containing such facilities which have been installed underground to furnish any of the following services materials: electricity, gases, liquid or steam. telephone petroleum products. other or communication means, cable television, sewage and drainage removal, traffic or other control systems or

water.

"UNIT PRICE WORK"

Work to be paid for on the basis of unit prices.

"WORK"

Work to be done under this Contract at the site of the

improvement.

"WORK DIRECTIVE CHANGE"

A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed.

"WRITTEN AMENDMENT"

A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly Work-related aspects of the Contract Documents

ARTICLE 1 - PRELIMINARY MATTERS

1.1 Delivery of Bonds

When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as called for in the Contract Documents.

1.2 Copies of Documents

OWNER shall furnish to CONTRACTOR up to three (3) copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

1.3 Contract Documents

These Contract Documents are complementary and what is called for in one shall be as binding as if called for in all. The intention of these Contract Documents is to include in the Contract Price the costs of all labor and materials, water, fuel, tools, plant, equipment, light, transportation, taxes, bonds, and all other expense and profit as may be necessary for the proper and complete execution of the work.

1.4 Commencement of Contract Time: Notice to Proceed

The Contract Time will commence when the Contractor receives the Notice to Proceed from the Engineer. CONTRACTOR shall not be paid for any work performed prior to receiving the Notice to Proceed from the Engineer.

1.5 Starting the Project

CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run, unless such work is specifically approved by the owner/engineer.

1.6 Before Starting Construction

Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

1.7 Submission for Review

Within ten (10) days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

- 1.7.1 An estimated progress schedule indicating the starting and completion dates of the various stages of the Work; and
- 1.7.2 A preliminary schedule of Shop Drawings and/or sample submissions.
- 1.7.3 CONTRACTOR shall provide an updated progress schedule at all scheduled progress meetings.

1.8 Delivery of Certificates

Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain.

1.9 Subcontracts

The Contractor shall not execute an Agreement with any Subcontractor or permit any Subcontractor to perform any work in this Contract until he has received written approval of such Subcontractor from the Owner or Owner's appointed designee.

1.10 Preconstruction Conference

Following the Effective Date of the Agreement, but before CONTRACTOR starts the Work at the site, a conference attended by CONTRACTOR, ENGINEER and others, as appropriate, will be held to discuss the schedules referred to in paragraph 1.7, as well as the Subcontractors proposed by Contractor for certain portions of the work, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

1.11 Non-Discrimination

In compliance with the Acts of Indiana General Assembly, 1933, Chapter 270, the Contractor hereby agrees:

1.11.1 That in the hiring of employees for the performance of work under this Contract or any Subcontract hereunder, no Contractor, Subcontractor, nor any person acting on behalf of such Contractor or Subcontractor shall, by reason of race or color, discriminate against any citizen qualified to do work to which the employment relates;

- 1.11.2 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 or color;
- 1.11.3 That there may be deducted from the amount payable to the Contractor by the Owner 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 this Contract; and
- 1.11.4 That this Contract may be canceled or terminated by the Owner 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.

1.12 Insurance

1.12.1 Contractor's Liability Insurance:

a) The Contractor shall maintain such insurance as well as protect himself from claims under Workmen's Compensation Acts and other employee benefit acts; from claims for damages because of bodily injury, including death, to his employees and all others; and from claims for damages to property, any or all of which may arise out of or result from the Contractor's operation under the Contract, whether such operations be by himself or by any subcontractor, or anyone directly or indirectly employed by either of them. This insurance shall be written for not less than any limits of liability specified herein and shall name Elkhart County as an additional insured.

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1.12.2 Contractor's Insurance:

The types and minimum amount of insurance to be provided for by the Contractor shall be as follows:

a) Workmen's Compensation and Occupational Disease Insurance

The Contractor shall provide Workmen's Compensation and Occupational Disease Insurance as required by law. Such policy shall specifically include coverage for the State of Indiana, and such adjoining states as required by the Contractor's operations.

b) Employer's Liability Insurance

The Contractor shall provide Employer's Liability with a minimum coverage of \$1,000,000.

c) Comprehensive General Liability Insurance

The Contractor shall maintain a Comprehensive General Liability form of Insurance with bodily injury of not less than \$1,000,000 for any one (1) occurrence, and \$2,000,000 aggregate. The insurance policy shall include the following:

- 1. Premises Operations: The policy shall include coverage for the following special hazards when applicable to the project:
 - i) Property damage arising out of blasting or explosion.
 - ii) Property damage arising out of collapse of or structural injury to any building or structure due to grading of land, excavation, borrowing, filling, backfilling, tunneling, pile driving, cofferdam work or caisson work or to moving, shoring, underpinning, raising, or demolition of any building or structure or rebuilding of any structural support thereof.
 - iii) Injury to or destruction of wires, conduits, pipes, mains, sewers, and other similar property of any apparatus in connection therewith below the surface of ground, if caused by use of mechanical equipment.
- 2. Contractual (Broad Form Indemnification): The Contractor agrees to indemnify and save harmless the Owner and the Engineer, their agents and employees, from and against all loss or expense (including costs and attorneys' fees) by reason of liability imposed by law upon the Owner or the Engineer for damages because of bodily injury, including death, at any time resulting there from, sustained by any person or persons or an account of damage to property is due or claimed to be due to negligence of the Contractor, his Subcontractors, employees or agents.
- 3. Contractor's Protective: The Contractor shall maintain this type of coverage on a "Blanket" basis to cover the operations of any subcontractors.

d) Automobile Liability Insurance

The Contractor shall maintain Comprehensive Automobile Liability Insurance with bodily injury liability limits of not less than \$1,000,000 for one (1) occurrence and \$2,000,000 aggregate. This coverage may be provided either as a separate policy or as part of the Comprehensive General Liability Policy described previously. The automobile insurance must include coverage for all owned, non-owned and hired vehicles.

- e) Furnish Indiana State Forms No. 19 (Workmen's Compensation) and No.105 (Occupational Disease Act).
- f) Umbrella Policy Insurance

The Contractor shall maintain a minimum \$3,000,000 Umbrella Policy in addition to their primary insurance.

1.13 Proof of Carriage Insurance

- 1.13.1 Contractor shall not commence work until he has obtained all insurance specified herein, has filed with the Owner one (1) copy of Certificate of Insurance, and such insurance has been approved by the Owner.
- 1.13.2 Should any Coverage approach expiration during the Contract period, it shall be renewed prior to its expiration, and certificate again filed with the Owner.
- 1.13.3 If any of such policies are canceled or are changed so as to reduce the coverage evidenced by the Certificate, at least ten (10) days prior written notice by registered mail of such cancellation or change shall be sent to the Owner.
- 1.13.4 All insurance provided for under this Section shall be written by Insurance Companies licensed to do business in Indiana and Countersigned by resident Indiana agent. The insurance company shall file with the Owner, one (1) copy of Affirmation of Authority, on the form furnished by the Engineer, as verification of the resident agent.
- 1.13.5 All insurance shall be maintained in full force and effect until the Contract has been fully and completely performed.

ARTICLE 2 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

2.1 Intent

The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complimentary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

2.1.1 It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for.

- 2.1.2 If during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from ENGINEER; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.
- 2.2 Amending and Supplementing Contract Documents:

The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 2.2.1 A formal Written Amendment,
- 2.2.2 A Change Order, or
- 2.2.3 A Work Directive Change (pursuant to paragraph 8.1).

In addition, the requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

- 2.2.4 A Field Order,
- 2.2.5 ENGINEER's approval of a Shop Drawing or sample, or
- 2.2.6 ENGINEER's written interpretation or clarification.

ARTICLE 3 - AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

3.1 Availability of Lands

OWNER shall indicate, as shown in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER's furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim for an extension of Contract Time.

3.2 Physical Conditions - Underground Facilities

The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

- 3.2.1 OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and,
- 3.2.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Facilities shown or indicated in the Contract Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof, and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

3.3 Not Shown or Indicated

If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency) as permitted by paragraph 4.21, identify the owner of such Underground Facility and give written notice thereof to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility.

3.4 Assignment of Contract

The Contractor shall not assign this Contract or any part hereof without prior consent of the Owner.

ARTICLE 4 - CONTRACTOR'S RESPONSIBILITIES

- 4.1 Supervision and Superintendence
 - 4.1.1 CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise

as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

4.1.2 CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

4.2 Labor, Materials and Equipment

- 4.2.1 CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site, particularly in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents.
- 4.2.2 Unless otherwise specified in the General Conditions, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 4.2.3 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents.

4.3 Substitutes or "Or-Equal" Items

4.3.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be

accepted by ENGINEER if sufficient information is submitted by CONTRACTOR to allow ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by ENGINEER will include the following as supplemented in the General Conditions. Requests for review of substitute items of material and equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish at CONTRACTOR's expense additional data about the proposed substitute.

- 4.3.2 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ENGINEER, if CONTRACTOR submits sufficient information to allow ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents.
- 4.3.3 ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Drawing. OWNER may require CONTRACTOR CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute. ENGINEER will record time required by ENGINEER and ENGINEER's consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not ENGINEER accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's consultants for evaluating each proposed substitute.

4.4 Contractor Responsibility

CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractor, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any monies due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

4.5 Subcontractor Responsibility

All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER.

4.6 Permits

Unless otherwise provided in the General Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses.

4.7 Laws and Regulations

- 4.7.1 CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.
- 4.7.2 If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 2.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

4.8 Taxes

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

4.9 Use of Premises

- 4.9.1 CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or ENGINEER by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and ENGINEER harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR's performance of the Work.
- 4.9.2 During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.
- 4.9.3 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

4.10 Record Documents

CONTRACTOR shall maintain in a safe place at the site one (1) record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications issued in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to ENGINEER for OWNER.

4.11 Safety and Protection

- 4.11.1 CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - a) All employees on the Work and other persons and organizations who may be affected thereby;
 - b) All the Work and 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, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.
- 4.11.2 CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 4.11.1(b) or 4.11.1(c) caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR.
- 4.11.3 CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

4.12 Emergencies

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

4.13 Shop Drawings and Samples

- 4.13.1 After checking and verifying all field measurements and after complying with applicable procedures specified in the General Conditions, CONTRACTOR shall submit to ENGINEER for review and approval three (3) copies of all Shop Drawings. All submissions will be identified as ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable ENGINEER to review the information as required.
- 4.13.2 CONTRACTOR shall also submit to ENGINEER for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents.
- 4.13.3 At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and approval of each such variation.
- 4.13.4 ENGINEER will review and approve with reasonable promptness Shop Drawings and samples, but ENGINEER's review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction.
- 4.13.5 ENGINEER's review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission.
- 4.13.6 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to ENGINEER's review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

4.14 Continuing the Work

CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 13.4 or as CONTRACTOR and OWNER may otherwise agree in writing.

4.15 Indemnification:

To the fullest extent permitted by Laws and Regulations CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and their consultants, agents and employees from and against all claims, damages, losses, and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineer, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense:

- 4.15.1 (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.
- 4.15.2 In any and all claims against OWNER or ENGINEER or any of their consultants, agents or employees by any employee of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 1.12.2 (c2) shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

4.16 Sanitation

4.16.1 The Contractor shall introduce and enforce among his employees, such regulations in regard to cleanliness and the disposal of garbage and wastes as shall comply with the Local ordinances. The Contractor shall take such means as the Owner may direct to effectually prevent the creation of a nuisance at the work site or any part of the property of the Owner. Under no circumstances shall the Contractor create or maintain a nuisance. The Contractor shall construct toilets and maintain them in a sanitary condition, properly secluded from public observation at such points as shall be approved.

4.16.2 All waste, rubbish and debris – whether personal or from construction related processes – shall be removed from the job site and adjacent properties by hauling away and shall not be buried or discarded.

4.17 Road Closing Requirements

Work within the road right-of-way that necessitates a full closure of the road or any lane restrictions requires that the contractor notify 48 hours prior to the commencement of work all that apply from the following list:

ROAD CLOSING - NOTIFICATION NUMBERS

Fax, call, or mail notification of road/bridge closing to the appropriate people

Please note date of successful notification

POLICE, FIRE, EMS

Elkhart County PSCC (911 Center) 533-4151

SCHOOLS		
Baugo	293-8583	fax:
Concord	875-6577	fax: 875-1617
		fax: 875-8762
Elkhart	262-5695	fax: 262-5750
Fairfield	831-2188	fax:
Goshen	533-8631	fax:
Middlebury	825-9410	fax:
Northwood		fax:
POST OFFICES		
Bristol	848-4713	fax: 533-9998
Elkhart	293-5502	fax: 293-5501
Goshen	533-3915	fax: 533-8077
Middlebury	825-2505	fax:
Wakarusa	862-2010	fax:
NEWS MEDIA		
Elkhart Truth		
Goshen News	533-2151	fax: 534-8830
Channel 16	57/ 621 1616	fax: 293-3297
		fax: 631-1639
Channel 22		fax: 289-0622
Channel 28		fax: 522-7609
Criannei Zo	374-079-4345	iax. 522-7609
OTHERS:		
OTTIENS.		

Elkhart County	Hwy	533-0538
Elkhart County	Eng	534-9394

Elkhart County requires a written notification of the agencies notified, including time and date of successful notification. This notification must be given to Elkhart County Highway 24 hours prior to road closings or lane restrictions. This may be faxed to Elkhart County Highway.

The Contractor shall notify all applicable offices, agencies, media and schools, including Elkhart County Highway 24 hours prior to the removal of any lane restrictions or closures.

The Contractor shall coordinate the specific timing of the activation of any new signalization system, reopening, etc. When practical, the Contractor shall provide access through the site for emergency vehicle traffic.

ARTICLE 5 - OTHER WORK

5.1 Related Work at Site

OWNER may perform other work related to the Project at the site by OWNER's own forces, have work performed by utility owners, or let other direct contracts.

5.1.1 CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work.

ARTICLE 6 - OWNER'S RESPONSIBILITIES

6.1 Communication

OWNER shall issue all communications to CONTRACTOR through ENGINEER.

6.2 Appointment of Engineer

In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer whom CONTRACTOR makes no reasonable objection to, whose status under the Contract Documents shall be that of the former ENGINEER. Any dispute in connection with such appointment shall be subject to arbitration.

6.3 Payment

OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due.

6.4 Change Orders

OWNER is obligated to execute Change Orders as indicated in paragraph 8.4.

6.5 Inspection

OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 11.3.

6.6 Service Termination

In connection with OWNER's right to stop Work or suspend Work, see paragraphs 11.5 and 13.1. Paragraph 13.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

ARTICLE 7 - ENGINEER'S STATUS DURING CONSTRUCTION

7.1 Owner's Representative

ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

7.2 Visits to Site

ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations as an experienced and qualified design professional, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

7.3 Project Representation

If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in observing the performance of the Work.

7.4 Clarifications and Interpretations

ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

7.5 Authorized Variations in Work

ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER, and also on CONTRACTOR who shall perform the Work involved promptly.

7.6 Rejecting defective Work

ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, and will also have authority to require special inspection or testing of the Work at CONTRACTOR'S expense.

7.7 Decisions on Disputes

- 7.7.1 ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 9 and 10 in respect to changes in the Contract Price or Contract Time will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered by the claimant to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty (30) days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty (60) days after such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.
- 7.7.2 When functioning as interpreter and judge under paragraphs 7.7.1 ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

7.8 Limitations on Engineer's Responsibilities

Neither ENGINEER's authority to act under this Article 7 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

- 7.8.1 ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.
- 7.8.2 ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 8 - CHANGES IN THE WORK

8.1 Work Modifications

Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Written Amendment, a Change Order, or a Work Directive Change. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

8.2 Disagreement

If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change, a claim may be made therefore as provided in Article 9 or Article 10.

8.3 Contract Price and Time

CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents.

8.4 Change orders

OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

- 8.4.1 Changes in the Work which is ordered by OWNER.
- 8.4.2 Changes in the Contract Price or Contract Time which are agreed to by the parties.
- 8.4.3 Changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by ENGINEER.

8.5 Notification of Change

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

ARTICLE 9 - CHANGE OF CONTRACT PRICE

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

9.1 Change Order

The Contract Price may only be changed by a Change Order or by a Written Amendment.

9.2 Determination of Contract Price

The value of any Work covered by a Change Order (extra work order) for an increase or decrease in the Contract Price shall be determined in one of the following ways:

- 9.2.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.
- 9.2.2 On the basis of the actual Cost of the Work, plus the allowable Contractor's mark-up as per INDOT Specification 109.05 added thereon for overhead and profit.

9.3 Cost of the Work:

The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work.

The term Cost of the Work shall **not** include any of the following:

- 9.3.1 Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, attorneys, auditors, accountants, purchasing and contracting agents, CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work.
- 9.3.2 Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
- 9.3.3 Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.
- 9.3.4 Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same.
- 9.3.5 Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

ARTICLE 10 - CHANGE OF CONTRACT TIME

The Contract Time may only be changed by a Change Order or a Written Amendment. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than fifteen (15) days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within thirty (30) days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by ENGINEER.

No extension of Contract Time shall be allowed for weather, changes in quantities placed, or ENGINEER review times set forth in this contract.

ARTICLE 11 - WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

11.1 Warranty and Guarantee

CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 11.

11.2 Access to Work

ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

11.3 Tests and Inspections

CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

- 11.3.1 If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval.
- 11.3.2 The Contractor shall assume full responsibility for paying all costs in connection with testing or certification of materials required under INDOT Standard Specifications. In the case of failed or rejected materials or product used in construction of the project either by CONTRACTOR or SUBCONTRACTORS, independent third-party testing may be used at CONTRACTOR'S expense.
- 11.3.3 If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.
- 11.3.4 Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

11.4 Uncovering Work

- 11.4.1 If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.
- 11.4.2 If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment.

11.5 Owner May Stop the Work

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

11.6 Correction or Removal of Defective Work

If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, attorneys and other professionals) made necessary thereby.

11.7 Three Years Correction Period

If, within three (3) years after the date of Final Completion, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions, either correct such defective Work, or, if it has been rejected by OWNER and/or Engineer remove it from the site and replace it with non-defective work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, attorneys and other professionals) will be paid by CONTRACTOR.

11.8 Maintenance Bond

Each Contractor shall furnish prior to final acceptance a Maintenance Bond (form attached) in an amount at least equal to thirty percent (10%) of the Contract Price, guaranteeing for a period of three (3) years after the date of acceptance by the Owner,

that all workmanship and materials entered into the Contract are in accordance with the Plans and Specifications. Each Contractor shall remove any defects due to faulty workmanship and/or materials and shall pay for any damage to other work resulting there from which shall appear within the guarantee period. Should such quality assurance tests as are called for in the contract Plans and Specifications (e.g., roll test, density, concrete strength, etc.) not are performed or if the work is not performed within reasonable conformity to the Plans and Specifications the maintenance bond period may be extended to six (6) years.

11.9 Acceptance of Defective Work:

If instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER's evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price.

11.10 OWNER May Correct Defective Work:

If CONTRACTOR fails within a reasonable time after written notice of ENGINEER to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 11.6, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven (7) days' written notice to CONTRACTOR, correct and remedy any such deficiency. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price.

ARTICLE 12 - PAYMENTS TO CONTRACTOR AND COMPLETION

12.1 Schedule of Values

The schedule of values (itemized proposal) established at contract unit prices will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

12.2 Application for Progress Payment

At least fifteen (15) days before each regularly scheduled County Commissioners Meeting, CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

12.3 Contractor's Warranty of Title

CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

12.4 Review of Applications for Progress Payment

- 12.4.1 ENGINEER will, within ten (10) days after receipt of each Application for Payment, will either indicate in writing a recommendation of payment to the OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten (10) days after presentation of the Application for Payment with ENGINEER's recommendation, the amount recommended will become due and when due will be paid by OWNER to CONTRACTOR. All progress payments will be subject to a ten Percent (10%) retainage that will not be released until Maintenance Bond is received.
- 12.4.2 ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the Work in progress as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated; that, to the best of ENGINEER's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or OWNER to withhold payment to CONTRACTOR.
- 12.4.3 ENGINEER's recommendation of final payment will constitute an additional representation by ENGINEER to OWNER that the conditions precedent to CONTRACTOR's being entitled to final payment as set forth in paragraph 12.9 have been fulfilled.

- 12.4.4 ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make such representations to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:
 - a) The Work is defective, or completed Work has been damaged requiring correction or replacement.
 - b) The Contract Price has been reduced by Written Amendment or Change Order.
 - c) OWNER has been required to correct defective Work or complete Work in accordance with paragraph 11.10, or
 - d) Of ENGINEER's actual knowledge of the occurrence of any of the events enumerated in paragraphs 13.2.1 through 13.2.9 inclusive.

OWNER may refuse to make payment of the full amount recommended by ENGINEER because claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work or Liens have been filed in connection with the Work or there are other items entitling OWNER to a set-off against the amount recommended, but OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action.

12.5 Substantial Completion

When CONTRACTOR considers the entire Work ready for its intended use (that is, use by the public) and all work items are complete, CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete and request that ENGINEER issue a certificate of Substantial Completion. Within seven (7) calendar days for a contract price under \$1,000,000.00 and fourteen (14) calendar days otherwise, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be corrected before final payment.

The ENGINEER may recommend to the OWNER that a Waiver of Time be provided to the CONTRACTOR for the seven (7) or fourteen (14) calendar days listed herein if the CONTRACTOR has demobilized from the site, and there are no remaining defective or

incomplete Work items. A Waiver of Time is a document that waives the Liquidated Damages for the seven (7) or fourteen (14) day time-frame. A Waiver of Time may be given for part or the entirety of the seven (7) or fourteen (14) day period listed herein. The amount of time provided in the Waiver of Time is at the discretion of the OWNER.

12.6 Partial Utilization

Use by OWNER of any finished part of the Work, which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and useable part of the Work that can be used by OWNER without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

- OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 12.5 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
- 12.6.2 OWNER may at any time request CONTRACTOR in writing to permit OWNER to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to ENGINEER and within a reasonable time thereafter OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to OWNER and ENGINEER that such part of the Work is not ready for separate operation by OWNER, ENGINEER will finalize the list of items to be completed or corrected and will deliver such list to OWNER and CONTRACTOR together with a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they

shall have otherwise agreed in writing and so informed ENGINEER). During such operation and prior to Substantial Completion of such part of the Work, OWNER shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

12.7 Final Inspection

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

12.8 Final Application for Payment

After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents--all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable, CONTRACTOR may make application for final payment following the procedure for progress payments.

12.9 Final Payment and Acceptance

- If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation--all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten (10) days after receipt of final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 12.8. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty (30) days after presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance, and with ENGINEER's recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to CONTRACTOR.
- 12.9.2 If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted.

12.10 Contractor's Continuing Obligation

CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Substantial Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by ENGINEER, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 12.11).

12.11 Waiver of Claims

The making and acceptance of final payment will constitute:

12.11.1 A waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 12.10 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents; and

12.11.2 A waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 13 - SUSPENSION OF WORK AND TERMINATION

13.1 OWNER May Suspend Work

OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than one hundred eighty (180) days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the extension of the Contract Time directly attributable to any suspension.

13.2 Conditions of Termination by Owner

Upon the occurrence of any one or more of the following events:

- 13.2.1 If CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;
- 13.2.2 If a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
- 13.2.3 If CONTRACTOR makes a general assignment for the benefit of creditors;
- 13.2.4 If a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR's creditors;
- 13.2.5 If CONTRACTOR admits in writing an inability to pay its debts generally as they become due;
- 13.2.6 If CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 1.6 as revised from time to time);

- 13.2.7 If CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;
- 13.2.8 If CONTRACTOR disregards the authority of ENGINEER; or
- 13.2.9 If CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

ARTICLE 13 - SUSPENSION OF WORK AND TERMINATION

13.1 OWNER May Suspend Work

- 13.3.1 OWNER may, after giving CONTRACTOR and the surety, if there be one. seven (7) days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) such excess will be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by ENGINEER and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.
- 13.3.2 Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies due CONTRACTOR by OWNER will not release CONTRACTOR from liability.
- 13.3.3 Upon seven (7) days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

13.4 Conditions of Termination by Contractor

13.4.1 If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than one hundred eighty (180) days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty (30) days after it is submitted, or

13.4.2 OWNER fails for thirty (30) days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven (7) days' written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition, and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven (7) days' written notice to OWNER and ENGINEER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 4.14 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

ARTICLE 14 - MISCELLANEOUS

14.1 Giving Notice

Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

14.2 Computation of Time

When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

14.2.1 A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

14.3 Bid Submission

Each bidder who submits a proposal for any portion of the work included in the Project Manual must submit with its bid this form fully completed and signed by an authorized officer of the bidder and must provide the data requested by the form. Unless this form is fully completed and signed by the bidder, the proposal made by that bidder will be incomplete and will not be considered by the Board of County Commissioners.

20 	20 Pavement Marking Program BID FORM
1.	Name of Bidder
2.	Business Address
3.	Number of years engaged in contracting business under present firm's name: years.
4. 	Experience in the contracting work generally similar to this project, including list complexes, locations and approximate contract cost thereof.
	Have you ever defaulted on a contract?YesNo
J.	If Yes, when, with whom and why?
6.	It is a necessary requirement of this Specification that each Contractor show evidence for five (5) jobs guaranteed for one (1) year on workmanship unconditionally, and where Contractor has agreed to return and repair this work a no expense to the Owner.
7.	Have you ever filed bankruptcy or been adjudged bankruptcy?Yes No
8.	Do you employ any black, Hispanic, female or oriental minority persons? If yes please state the number of each of such minority persons you presently employYes No
	If no, please state reasons.

20	020 Pavement Marking Program	BID FORM
9.	Have you encouraged minority building subcontractors connection with your bid?YesNo. If yes, st minority subcontractors who have been contacted by y submitting a bid/proposal. If no, please state reasons.	ate the name(s) of the
10	Do you intend to use any minority subcontractors in performithe materials contained within your bid?Yesthe name of the subcontractor. If no, please state reasons.	
11	Have you been involved in any complaints or litigation relati subcontractors?Yes No. If yes, what is the stathe litigation?	
12	2 Additional pertinent comments:	
	BY:	
	(Signature of official completing this form)	

and severally, firmly by these presents:

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned	
As PRINCIPAL, and	
As SURETY, are held and firmly bound unto the E	lkhart
County Board of County Commissioners, hereinafter called the "Owner", in the	penal
sum of	
Dollars (\$)	lawful
money of the United States, for the payment of which sum well and truly to be mad	le, we

bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified herein after the opening of the same, or if no period be specified within or sixty (60) days after the said opening, and shall within the period specified therefore, or, if no period be specified within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the Owner in accordance with the bid as accepted, and give Bond for faithful performance and proper fulfillment of such Contract; or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified if the

Principal shall pay the Owner the difference between the amount specified in said Bid and the amount for which the Owner may procure the required work or suppliers or both, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above	bounden parties	have executed th	nis instr	ument
under their several seals this	day of		_ the	name
and corporate seal of each corporate p	party being hereto	affixed and these	presen	ts duly
signed by its undersigned representati	ve, pursuant to au	uthority of its govern	ning bo	dy.

IN PRESENCES OF:	INDIVIDUAL PRINCIPALS:	
		(SEAL)
		(SEAL)
		(SEAL)
,		(SEAL)
ATTEST:	CORPORATE PRINCIPAL:	
		(SEAL)
		(SEAL)
Business Address		
	By:	
	Title:	
ATTEST:	CORPORATE SURETY:	
		(SEAL)
		(SEAL)
Business Address		
	By:	
	Title:	

Power-of-Attorney for person signing for Surety Company must be attached to Bond.

2020 Pavement Marking Program CERTIFICATE AS TO CORPORATE PRINCIPAL

OWNER, which are made a part of this bond:

PERFORMANCE BOND KNOW ALL MEN BY THESE PRESENTS, as principal and as surety, are firmly bound unto Elkhart County, Indiana, acting through its Board of County Commissioners (OWNER) in the penal sum of an amount equal to one hundred percent (100%) the amount of his bid or the contract price, if the proposal is accepted, 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 presents, this _____day of , 2020. THE CONDITIONS OF THE ABOVE OBLIGATION ARE SUCH that, whereas, the principal is herewith submitting a bid and proposal for the construction and completion of 2020 Pavement Marking Program as described.

NOW, THEREFORE, if the said OWNER shall award said principal the contract for work and said principal shall promptly enter into a contract with said OWNER for the said work and shall well and faithfully do and perform the same in all respects according to the plans and specifications provided by the said OWNER, and according to the time, terms, and conditions specified in said contract to be entered into, and in accordance with all requirements of law, and shall promptly pay all debts incurred by him or any subcontractor in the construction of said work, including labor, service, and materials

In accordance with the plans and specifications approved and adopted by said

furnished, then this obligation shall be void; otherwise to remain in full force, virtue and effect.

IT IS AGREED that no modifications, omissions, or additions in or to the terms of such contract or in or to the plans or specifications therefore shall in any wise affect the obligation of such sureties on its bond.

IN WITNESS	WHEREOF,	we hereunto	set	our	hands	and	seal	this	 _day	of
	<u> </u>	<u>020</u> .								
NAME										
NAME				_						
ADDRESS										
ADDRESS										
BY										
BY										
Signature				Sig	nature_				 	
Title				(Pri	nted)					
S	Suretv					Princ	cipal			

PERFORMANCE BOND

State of Indiana, County of		SS:	
Personally, appeared before me,			
as principal and			
as surety and each acknowledge	d the execution of	the above bond this	day
of, 2020			
BY_	Signature	Notary Public	
_			
Witness my hand and notarial se	al the said last nan	ned date.	
My Commission Expires	_, 20		
(County of Residence)			
Accepted and approved this	day of	, 2020.	
Mike Yoder			
Frank Lucchese			
Suzie Weirick			
ATTEST: Patricia A. Pickens, A	 uditor		

MAINTENANCE BOND KNOW ALL MEN BY THESE PRESENT: That we, _____ Principal, and as Surety, are held and firmly bound to the ______ the sum of_____ _____Dollars (\$______) for the payment of which sum well and truly to be made, we jointly and severally bind ourselves, our heirs, executors, administrators, and successors, firmly by these present. THE CONDITIONS OF THE ABOVE OBLIGATION are that, whereas the Principal, entered into a contract with the Owner on the ______, ____, to construct _____according to the Plans and Specifications, and also warranting the work and materials as provided in the aforesaid Contract and Specifications, for a period of three (3) years from the date of final acceptance of work by the Owner. Now, if the said Principal shall faithfully perform and fulfill all the requirements of said Warranty and Guaranty, and make all repairs required under said Guaranty and, in the manner provided for, then this Bond to be null and void, otherwise to be in full force and effect.

MAINTENANCE BOND

shall be deemed an original,	this day o	of	, 2020
(SEAL)	Principal		
ATTEST:			
	BY:		
Title	Title		
(SEAL)			
ATTEST:			
	BY:		
Title	Title		
APPROVED this	day of	, 2020.	
	ELKHART COUNT By and Through Its BOARD OF COUN		
Mike Yoder			
Frank Lucchese			
Suzie Weirick			
ATTEST:Patricia	A.	Pickens,	

AGREEMENT

THIS AGREEMENT, made and entered into this	_ day of, 2020, by and
between	(a corporation organized and
existing under the laws of the State of Indiana), hereinafter refe	rred to as the "CONTRACTOR,"
and "ELKHART COUNTY, INDIANA," acting through the Board	d of Commissioners, hereinafter
referred to as the "OWNER."	

WITHESSETH, that the Contractor and the Owner, for the considerations stated herein, mutually agree as follows:

ARTICLE 1 -- STATEMENT OF WORK

The Contractor shall furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services, including utility and transportation services, and traffic control, and perform and complete all work required for 2020 Pavement Marking Program, in Elkhart County, Indiana, as more particularly described in the Specifications, Special Provisions, General Requirements, Supplementary Conditions, Terms for Bidding, plans and drawings, and other items contained therein prepared by Elkhart County ("ENGINEER") and referred to herein as the "Construction Documents." All such Construction Documents have been reviewed and approved by the parties hereto and all are incorporated herein by reference as a part of this Agreement consistent with Article 4 below. All undertakings, duties, obligations, and performance required of Contractor by the Construction Documents and this Agreement are hereinafter referred to as the "Work."

ARTICLE 2 -- CONTRACTOR REPRESENTATIONS

The Contractor represents to Owner that it is fully experienced and properly qualified as an expert to render the performance required for the Work, and that it is properly equipped, organized and financed for performance of this Agreement. Contractor further represents and acknowledges that it is an independent contractor, and that Contractor IS NOT, in any manner or form, an agent, employee, or representative of Owner.

The Contractor agrees to indemnify and save harmless the Owner and Engineer, their agents and employees, from and against all loss or expense (including court costs and attorneys' fees of defense or enforcement) by reason of liability imposed by law or otherwise upon the Owner or Engineer, for (1) damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons, or (2) on account of damage to property or property rights or interests, including loss of use thereof, arising out of or in consequence of the performance of the Work, provided such injury to persons or damage to property is due or claimed to be due to negligence of the Contractor, its subcontractors, employees or agents, or in violation of this Agreement.

REQUIREMENTS FOR CONTRACTORS ON PUBLIC WORKS PROJECTS

- 1) The provisions of Indiana Code Section 5-16-13 are hereby incorporated by reference including, but not limited to, the following specific provisions:
 - a) Contractor must contribute in work performed by its employees, materials supplied directly by Contractor, and services supplied directly by its employees of at least fifteen percent (15%) of the total contract price.
 - b) Contractor must maintain general liability insurance in the amounts provided in the Construction Documents but in no event less than One Million Dollars (\$1,000,000.00) for each occurrence limit and Two Million Dollars (\$2,000,000.00) for the general aggregate limit.
 - c) Contractor must implement and comply with the requirements of Indiana Code Section 22-5-1.7 concerning the E-Verify system with respect to its employee hiring. Contractor must submit, before work begins on the Agreement, the E-Verify case verification number for each individual who is required to be verified under Indiana Code Section 22-5-1.7. An individual who is required to be verified under Indiana Code Section 22-5-1.7 whose final case result is final non-confirmation may not be employed on this Work.

- d) Contractor may not pay cash to any individual employed by the Contractor for work done by the individual on this Work.
- e) Contractor must be in compliance with the Federal Fair Labor Standards Act of 1938, as amended (29 USC 201-209) and Indiana Code Section 22-2-2-1 through Indiana Code Section 22-2-8.
- f) Contractor must be in compliance with Indiana Code Section 22-3-5-1 and Indiana Code Section 22-3-7-34.
- g) Contractor must be in compliance with Indiana Code Section 22-4-1 through Indiana Code Section 22-4-39.5.
- h) Contractor must be in compliance with Indiana Code Section 4-13-18-1 through Indiana Code Section 4-13-18-7.
- 2) Drug Testing of Employees. Indiana Code Section 4-13-18 regarding the drug testing of employees of public works contractors applies to the Agreement, as the estimated cost hereof is at least One Hundred Fifty Thousand Dollars (\$150,000.00) and has been awarded after June 30, 2015.
- 3) Nondiscrimination. Pursuant to Indiana Code Section 22-9-1-10, Contractor and its subcontractors, if any, shall not discriminate against any employee or applicant for employment to be employed in the performance of the Agreement with respect to hire, tenure, terms, conditions or privileges of employment or any matter directly or indirectly related to employment, because of race, religion, color, sex, disability, national origin, ancestry, or veteran status. Breach of this covenant may be regarded as a material breach of the Agreement.
- 4) Anti-nepotism. Contractor is aware of the provisions of Indiana Code Section 36-1-21 et seq. with respect to anti-nepotism in contractual relationships with governmental entities.
 Contractor certifies that none of the owners of Contractor is a relative of any elected Council Member or Commissioner of the County of Elkhart, Indiana.

5) Investment Activity. Pursuant to Indiana Code Section 5-22-16.5-13, Contractor certifies that Contractor is not engaged in investment activities in Iran.

ARTICLE 3 -- THE CONTRACT PRICE

The Owner will pay the Contractor for the performance of the Work subject to additions and deductions provided herein, in current funds, and per applicable Indiana law and the required procedures for payments by Owner, the sum of ____. The Contractor shall start the Work for Part 1 on or after JUNE 22, 2020, AND COMPLETE THE Work on or before SEPTEMBER 11, 2020, for PART 2, START DATE SEPTEMBER 14, 2020, AND COMPLETE WORK on or before **OCTOBER 23, 2020.** Any Work remaining to be completed after the COMPLETION DATE is subject to the following damages:

For each and every day Work contemplated in this Agreement remains uncompleted, and/or unsatisfactorily completed or unaccepted, beyond the completion date herein established (OCTOBER 23, 2020), Contractor shall owe and pay to Owner the sum of One Thousand Dollars (\$1000.00) per day, as liquidated damages and not as penalty. In establishing said One Thousand Dollars (\$1000.00) sum per day as and for liquidated damages owed by the Contractor to Owner, the parties hereto stipulate and agree that the actual damages that would be suffered by Owner because of the failure of Contractor to timely complete the Work contemplated are indefinite and uncertain; however, the parties hereto stipulate that the sum herein established is a reasonable estimate by the parties of the probably damages to be suffered by the Owner upon the failure of the Contractor to timely complete the Work contemplated. The liquidated damages herein established shall be deducted daily from the Contract Price herein established, thereby reducing the same for the total amount of liquidated damages as herein stipulated, and hence reducing payments of the Contract Price Owner would otherwise make. If an intermediate date is specified for one or more of the items or phases of the contract, liquidated damages will apply for that particular item or phase as if the intermediate

date specified for said item or phase is conclusion of said portion of project or contract.

ARTICLE 4 -- CONTRACT DOCUMENTS

The Contract Documents forming a part of this Agreement by reference shall consist of the following:

- a. This Agreement.
- b. Memos:
- c. Invitation for Bids.
- d. Instructions to Bidders.
- e. Signed copy of Bid and Itemized Bid Form.
- f. General Conditions and Supplementary Conditions.
- g. Construction Specifications and Related Documents.
- h. Plans.
- J. Addendums

ARTICLE 5 -- PROJECT CONTROL

The Contractor will carry out this project and complete the Work under the direction of the Owner and the Owner's agents, the Engineer, or other consultant designated by the Owner. The Owner's designated representative during the construction period will make visits to the site at intervals appropriate to the various states of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents.

This Agreement, to include the Contract Documents enumerated in Article 4 above, constitutes the full agreement and understanding of the parties hereto, and save for change orders and procedures therefore set forth within the Contract Documents, shall not be amended by the parties, other than by instrument executed by each party hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be

Agreement

2020 Pavement Marking Program Ag executed in various counterparts effective as of the date and year first above written.

CONTRACTOR:								
By			S	ignature				
			P	rinted Nar	ne			
Title								
OWNER: ELKHART COUNTY, Commissioners	INDIANA,	by	and	through	its	Board	of	County
Mike Yoder	_							
Frank Lucchese								
Suzie Weirick								
ATTEST:Patricia A. Pickens, Auditor								

Division 2:

Bid Documents

For

2020 Pavement Marking Program

OWNERS:

ELKHART COUNTY, INDIANA, ACTING THROUGH IT'S BOARD OF COUNTY COMMISSIONERS ELKHART COUNTY HIGHWAY DEPARTMENT ENGINEERING SECTION 610 STEURY AVENUE GOSHEN, IN 46528



Elkhart County Highway Department 610 Steury Avenue, Goshen, Indiana 46528 Phone: 574-534-9394 • Fax: 574-533-7103

NOTICE TO BIDDERS

Notice is hereby given that the Board of County Commissioners of Elkhart County, Indiana, will receive bids up to 9:00 A.M. on Monday, JUNE 15, 2020 for the 2020 Pavement Marking Program PART 1 and PART 2. It is the responsibility of the bidder to ensure that its bid is delivered on time to the Office of the Elkhart County Commissioners, County Administration Building, 117 N. Second Street, Goshen, IN 46526.

Plans, Specifications and bidding documents may be obtained from the **Elkhart County Highway Department, website** at <u>www.elkcohwy.org</u> starting on <u>Friday, May 22, 2020</u>. Plans, Specifications and Bidding Documents <u>may not be</u> obtained prior to this date.

Plans, Specifications and Bidding Documents will be available for inspection at the Elkhart County Highway Department Office, 610 Steury Ave, Goshen, Indiana starting on Friday, May 22, 2020. A pre-bid meeting will be held at 10:00 A.M. on Wednesday, June 10, 2020 at the Elkhart County Highway Department, 610 Steury Avenue, Goshen, IN 46528. The pre-bid meeting is not mandatory; however, attendance is recommended to receive the latest updates and have questions answered in the timeliest manner. Bidders who fail to participate in the pre-bid meeting and submit a bid do so at the risk of not having the best information.

Proposals shall be properly and completely executed on proposal forms furnished by the County in accordance with Revised Indiana Form 96 and shall be accompanied by the Contractor's Financial Statement form taken from Form 96A for any proposal of \$5,000 or more.

The Contractor shall submit an itemized proposal of the approximate quantities and components of labor and materials to complete the contract. Said proposal shall be upon the standard bid sheets used by Elkhart County, and said sheet must contain an authorized signature of the Contractor, or the bid of the Contractor may, at the discretion of Elkhart County, be rejected and declared invalid. Each proposal shall be accompanied by a non-collusion affidavit as required by the Statutes of Indiana. Bids shall be enclosed in a sealed envelope, bearing the title of the project and name and address of bidder.

Bids will be accepted only from bidders who are sufficiently and currently pre-qualified by the Indiana Department of Transportation. Proof of pre-qualifications must be submitted with the bid.

A current Contractor's Financial Statement taken from Form 96A and the Indiana Department of Transportation prequalification certificate may be placed on file with the Board of County Commissioners of Elkhart County at the Highway Division annually in lieu of executing these documents for each project.

All work for Part 1 may begin on **June 22**, **2020** and shall be completed by **September 11**, **2020**, all work for Part 2 may begin on **September 14**, **2020** and shall be completed by **October 23**, **2020**. Delays in completion beyond that date shall result in liquidated damages levied against the Contractor by Elkhart County. The damage charges shall be one thousand dollars (\$1000) per calendar day beyond the above stated date and any intermediate completion dates noted in the specifications.

A satisfactory bid bond (10% of bid), payable to the Board of County Commissioners of Elkhart County, Indiana executed by the bidder shall be submitted with each bid.

Wage rates on this work shall not be less than the prescribed scale for wages as determined pursuant to the Provisions of IC 5-16-7.

No bids shall be withdrawn after the opening of the bids without the consent of the Board of Commissioners of Elkhart County for a period of thirty (30) days after the scheduled time of closing.

Said work shall be subject to all the provisions of the plans and specifications therefore herein above referred to including the completion date thereof and penalty clause as therein set forth.

Dated this 18th day of May, 2020 Board of County Commissioners of Elkhart County By Patricia a. Pickens, Auditor

Advertise: May 20th and May 27th, 2020 - Elkhart Truth and Goshen News

The approximate quantities for this contract are as shown on the itemized bid tabs included on the attached pages. If extra work is necessary due to shifting of any of the items of construction or if additional work is called for in accordance with these specifications, such work shall be paid for on the basis of the following itemized unit prices. In addition to the above, the said unit prices shall also be the basis of payment to the Contractor for actual asphalt placed. The attached sheet (s) must be completely filled out and submitted with the sealed bid or Elkhart County may at its discretion, reject the bid and declare the same invalid. An authorized signature of the Contractor is mandatory upon the bid sheets. All other items necessary to properly complete this project or specifically outlined, shall be included within the line items provided and will be considered as incidental. The award of this contract will be based on the sum of the items within GROUP listed below. Please recognize that the quantities provided are estimated. Elkhart County is not responsible for any wrong formulas or miscalculations in the attached excel Contractor Bid sheet.

This Bid shall be so prepared as to properly indicate:

One (1) total lump sum to furnish labor, materials, services and equipment to perform the work indicated in the bid materials (drawings, specifications and or as specified herein). The Award of this project will be based on the "Total" bid price for GROUP, being the total sum of the items within that GROUP on the itemized bid tab. Please indicate this total below.

NOTE: Any Item may be withdrawn by Elkhart County at any time prior to the placement of the material.

Division 3:

Project Technical Specifications

For

2020 Pavement Marking Program

OWNERS:

ELKHART COUNTY, INDIANA, ACTING THROUGH IT'S BOARD OF COUNTY COMMISSIONERS ELKHART COUNTY HIGHWAY DEPARTMENT ENGINEERING SECTION 610 STEURY AVENUE GOSHEN, IN 46528



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TP1 - GENERAL INFORMATION

GENERAL

The following Technical Provisions are in addition to the Indiana Department of Transportation 2020 "STANDARD SPECIFICATIONS", which Standard Specifications shall apply to this contract. Where the words "Standard Specifications" and also where reference consisting of a number or numbers are used, they shall be construed as referring to the Indiana Department of Transportation 2020 Standard Specifications and current supplemental specifications and standard detail drawings.

The term "State" as used in the Standard Specifications shall be deleted and replaced with the term "County".

The term "Engineer" as used in the Standard Specifications shall be the person, firm, or corporation named as such in the written Agreement between the OWNER and CONTRACTOR.

TP2 - TIME OF COMPLETION

GENERAL

Work on this Contract shall not begin prior to notice to proceed. For Part 1 the Contractor shall begin on or after **June 22**, **2020**, and shall complete all work no later than **September 11**, **2020** and for Part 2, the Contractor shall begin work on **September 14**, **2020**, and shall complete work no later than **October 23**, **2020**.

This completion date is a 'fixed calendar date' as defined by INDOT Standard Specifications section 108

Determination and Extension of Contract Time for Completion and Failure to Complete on Time shall be in accordance with the Agreement and all applicable requirements of 108.08 and 108.09 respectively, and modified as follows.

No extension of Contract Time shall be allowed for weather or changes in quantities placed.

Changes in Contract Time will only be considered if requested in writing by the Contractor in accordance with Article 10 of the General Conditions.

The Contractor shall notify the Owner at least two (2) weeks in advance of his intention to perform any Work on the project. The contractor shall give the owner/inspector updated schedules of work on a weekly basis or as the schedule changes. The Contractor shall also notify the appropriate agencies of his intention to close any County Road in connection with the project. See ROAD CLOSING REQUIREMENTS.

Final Inspection may be done on a per segment basis. When a particular segment is completed, a final inspection may be requested and final acceptance granted for that particular segment.

Project Completion will be assessed by the following criteria, striping has been completed on all segments, construction debris removed, pre-final inspection punch list items have been completed, final inspection has been granted and all contract line items are completed. Time extension may be granted on any work items added through change order or outside of contract.

TP3 - BUY AMERICAN REQUIREMENT

GENERAL

Buy American Requirements shall be in accordance with 106.01(c) of INDOT's Standard Specifications.

TP4 - HAZARD COMMUNICATIONS PROGRAM

GENERAL

Pursuant to the latest requirement of OSHA the bidder is obligated to inform his employees concerning the health and safety hazards of chemical substance that may be required in the performance of this contract.

TP5 - MAINTENANCE OF TRAFFIC

GENERAL

All signs and traffic control devices shall be in accordance with the Indiana Department of Transportation Standard Specifications and the Indiana MUTCD so as to provide continuous, safe, 2-way traffic at all times.

The Contractor shall be totally responsible for the maintenance of traffic. Maintaining of traffic shall be the non-delegable duty of the Contractor to fulfill each and every responsibility and to accept full liability. All applicable provisions of 107.12 shall apply to work being done under traffic.

Construction signs and barricades shall be as per INDOT standard sheets and shall be in sufficient condition for good functioning (i.e. visible, readable, reflective, etc.).

The Contractor will be responsible for maintenance of traffic including all construction signs necessary or as directed by the Engineer for the duration of construction.

The timing of any lane restrictions shall be subject to approval by the Engineer.

The Contractor shall keep lane restrictions to an absolute minimum, as reasonable in order to complete the work. When lane restrictions are necessary, the Contractor shall perform continuous work operations so as to lift the lane restrictions as soon as possible. Lane restrictions shall not remain in place while the Contractor is not actively working.

All costs of maintaining traffic, as specified for in this contract, shall be included in other line items and such price shall include and be full compensation for all costs incurred by the Contractor for maintaining traffic, and as set forth in Sections 104.04 and 108.04 of the Standard Specifications.

The Contractor shall be responsible for safe driving of trucks, heavy equipment, etc. related to the project work, including subcontractors. All work vehicles shall be adequately and appropriately outfitted with functioning beacons, strobe lights, flashers, and arrow boards as needed to communicate the potential danger to motorists.

The Contractor shall give a 24 hr./day emergency phone number to the owner and to local law enforcement authorities, for the prompt response to project-related concerns during non-work hours.

Lane restrictions shall be during daylight hours only unless otherwise approved by the Engineer.

TP6 - CONTRACTOR'S RESPONSIBILITY FOR MATCHING OLD WORK

GENERAL INDOT SECTION 808

The alignment of all re-striped pavement markings shall be placed within \pm in. in width and \pm 2 in. in length of the original markings.

Lines shall be squared at both ends, without mist, drip or spatter.

A new broken line placed over an existing broken line shall laterally match the existing broken line, and the new line segments shall not extend longitudinally more than 10%nbeyond either end of the existing line segments.

Painting over existing pavement markings to obliterate them will not be permitted.

TP7 - CONTAMINATION PRECAUTION

GENERAL

Contractor shall take all precautions to avoid the spillage of construction-related liquids and fuels during the project. All portable stationary fuel tanks shall have secondary containment.

TP8 - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

GENERAL

Wherever in the Contract Documents reference is made to the Manual on Uniform Traffic Control Devices, MUTCD, it shall be interpreted to mean the 2011 Indiana Manual on Uniform Traffic Control Devices with revisions 1, 2 & 3.

TP9 - COORDINATION, SCHEDULEING AND LOG SHEETS

GENERAL

Contractor shall coordinate the work on this project with any other public works projects that may be taking place within the vicinity of the project site, or that are seen to, or are expected to, have an effect on this project or that this project has on another. This includes coordination with projects funded by Elkhart County, neighboring counties, municipalities, utilities or INDOT.

Contractor shall prepare and submit a work schedule identifying which road segments are planned to be striped on each day of an upcoming two-week period. The schedule shall be submitted weekly, by Friday at 2 PM, for the two-week period starting the following Monday. This will allow the County to coordinate paving and sealing work, and/or modify the Contractor's work plan where needed to avoid potential conflicts. The intent of the schedule is not to create a strictly followed plan, but to allow the County and Contractor to coordinate activities. The weekly schedule shall also list all road segments completed during the work week ending on the Friday the schedule is due.

A daily log shall be kept complete with date, weather, including air temperature at start, air temperature at finish, surface temperature of pavement, start and stop time, location, width of stripe, color and quantity per segment. Completed log shall be turned in with bi-monthly pay estimate for final records. Completed log may be retained by contractor only when completed copies are made for County's records.

TP10 - INSPECTION AND TESTING

GENERAL

- 1. LABORATORY INSPECTION AND TESTING
- (a) The minimum number of samples and/or tests will be in accordance with INDOT's "Manual for Frequency of Sampling and Testing and Basis for Use of Material" unless superseded by the Technical Provisions and Supplementary Specifications for this project. This manual is available for review at INDOT's Office of the Division of Materials and Tests.
- (b) The cost of this work shall be per Lump Sum.
- (c) The Engineer, or the Engineer's Authorized Representative, may require that collection, laboratory inspection and testing of materials be performed in addition to the minimum number of tests required as described above. A written order will be provided to the Contractor requesting the additional work. Payment for the additional collection, laboratory inspection and testing of materials will be made either by change order or under the item allowance for Inspection and Testing if included in the contract. All test results shall be given to the owner/inspector in a timely manner.

TESTING REQUIREMENTS

Retro-reflectivity testing equipment shall be furnished, calibrated, and operated in accordance with ITM 931. The markings shall be tested in a period of not less than 14 days to not more than 30 days after the materials are applied. The retro-reflectivity equipment shall remain the property of the Contractor. The measurement of retro-reflectivity shall be supervised or performed at all times by an operator trained and certified by the unit's manufacturer. A report as described in the ITM and including the specified test results and calculations shall be prepared and provided to the Engineer within three days of each day of testing.

Quality adjustments will be applied to the payment of markings which fail to meet the required minimum initial average retro-reflectivity values. The required minimum initial and retained average retro-reflectivity values for longitudinal line measured in mcd/m²/lx are as follows:

Material Type	White	Yellow	Quality Adjustment
Paint	≥ 250	≥ 175	1.00
Required Minimum	150 to 249	125 to 174	0.70

TP11 – RESTORATION OF PAVEMENT MARKINGS

GENERAL

The contractor is responsible for placing all linear pavement markings in the same location, pattern and style as they are currently at locations indicated or as directed. This includes center line(s), edge line, turning lane lines, and all other striping. Transverse pavement markings, lane indication wording or arrows and railroad markings are not included in this contract.

An undistributed quantity of select materials has been included to allow for additional striping if needed. The County intends to schedule the use of these undistributed amounts so as to minimize additional mobilization costs by the contractor.

1.0 Description

This specification covers thermoplastic, latex based traffic line paint and glass beads suitable for use as retro reflective pavement markings on bituminous or PCC pavement.

1.1 If road does not have edge markings and has an ADT of 5000 or more, edge lines must be installed as well. Road to have edge lines will be determined by Engineer and noted prior to bidding.

2.0 Materials

A. Paint

Use white or yellow paint that is specifically manufactured for use on traffic markings. The paint must comply with volatile organic compound (VOC) requirements, be lead and other toxic heavy metal free, and exhibit the following qualities:

- 1. The non-volatile portion of the vehicle shall be composed of a 100% acrylic-polymer as determined by infrared spectral analysis.
- 2. Yellow and white paint shall have a minimum of 60% solids by volume.
- 3. The paint shall have a minimum of 60% and a maximum of 62% pigment by weight.
- 4. Dry-Opacity: A contrast ratio of not less than 0.96 when the paint is applied with a 0.015 in. film applicator. Dry Opacity will be determined according to Method 4121, Federal Test Method Standard No. 141a. Apply the paint to the chart specified in Section 1.1 of Method 4121.
- 5. Daylight Directional Reflectance of the white paint shall not be less than 85% as determined in accordance with ASTM E 1347 using the 45/0 illumination.
- Color Match: Yellow paint shall match Federal Standard 595 color number 33538 tested in accordance with ASTM D 1729 with the daylight illumination represented by CIE Illuminant D75 or D65. White paint shall not exceed a yellowness index of 12 when tested in accordance with ASTM D 1925.
- 7. Titanium Dioxide Content: Yellow paint shall contain a maximum of 0.2 lb./gal rutile titanium dioxide. White paint shall contain a minimum of 1 lb./gal rutile

titanium dioxide. Determine the titanium dioxide content using the aluminum reduction method of ASTM D 1394.Drying Time: The paint shall dry to a no tracking condition in no more than 90 seconds. The no tracking condition shall be determined by actual application on the pavement at a wet film thickness of 0.015 in. with white or yellow paint covered with glass beads at a rate of 6 lb./gal. Pavement temperatures shall be between 60 and 100° F and under all humidity conditions providing that the pavement is dry. The no tracking time shall be determined by passing over the paint line 90 seconds after paint application, in a simulated passing maneuver at a constant speed of 30 to 40 mph with a passenger car. A line showing no visual deposition of the paint to the pavement surface when viewed from a distance of 50 feet from the point where the test vehicle has crossed the line shall be considered as showing no tracking.

B. Glass Beads

Reflective glass beads for use in the composition and for drop-on shall conform to the following requirements:

- The glass beads shall be colorless, clean, and transparent, free from milkiness or excessive air bubbles, and essentially free from surface scaring or scratching. They shall be spherical in shape and at least 70% of the glass beads shall be true spheres when tested in accordance with ASTM D 1155.
- 2. The refractive index of the beads shall be a minimum of 1.50 as determined by the liquid immersion method at 25 degrees Celsius true.
- 3. The silica content of the glass beads shall not be less than 60%.
- 4. The glass beads shall be coated with a moisture resistant coating and an adhesion promoting coating which is compatible with the paint being used, shall remain free from clusters, and shall flow freely from dispensing equipment.
- 5. The glass beads shall have the following grading when tested in accordance with AASHTO M-247 FOR TYPE 1

US Standard	
Sieve	Mass % Passing
No. 20	100
No. 30	75-95
No. 50	15-35
No. 100	0-5

Application shall be per INDOT Specification Methods.

CONSTRUCTION

The manner of placement, drying times, bead rate, protection from traffic, etc., shall conform to the latest INDOT specifications at a minimum (except as modified herein), but striping will still be required to achieve the minimum retro reflectivity standards as stated in performance requirements below and Section 808 of the INDOT Standard Specifications.

EQUIPMENT

Traffic paint shall be applied with a spray type machine capable of applying the traffic paint under pressure through a nozzle directly onto the pavement. The truck mounted machine shall be equipped with the following:

- a. air blast device for cleaning the pavement ahead of the application;
- b. guide pointer to keep the machine on an accurate line;
- c. spray guns which can be operated individually or simultaneously;
- d. agitator or recirculation system as appropriate;
- e. control device to maintain uniform flow and application;
- f. capability of heating the material to application temperatures;
- g. automatic device which will provide a line of the required pattern; and
- h. automatic bead dispenser which is synchronized with the marking application.

PERFORMANCE REQUIREMENTS

TRAFFIC PAINT

The color and durability requirements shall be met for a minimum of 90 days after application.

Pavement marking segments which are found to have an average retro reflectivity reading below the minimum required shall be re-striped with no additional payment. Pavement markings segments which have more than five of 20 individual readings below the minimum required shall be re-striped with no additional payment. The re-striping shall begin within 14 calendar days of the completion of the retro-reflectivity measurement. Line segments may be re-striped with no additional payment. Following each re-striping, additional retro-reflectivity measurements shall be made with no additional payment. Quality adjustments will be based on the final retro-reflectivity measurements. The alignment of all re-striped pavement markings shall be placed within $\pm 1/4$ in. in width and ± 2 in. in length of the original placed markings. Re-striping will not be allowed more than two times, after which removal and replacement of the markings will be required.

MEASURMENT

Pay Item (BID ITEMS)		<u>Unit</u>
Striping, road segments as indicated	LSUM	
Retro-Reflectivity Testing	LSUM	
Pay Item (ADDITIONAL WORK))		
Paint, White, Solid, 4"	LFT	
Paint, White, Broken, 4"	LFT	
Paint, Yellow, Broken, 4"	LFT	
Paint, Yellow, Solid, 4"	LFT	
Thermoplastic, White, Solid, 4"	LFT	
Thermoplastic, White, Broken, 4"	LFT	
Thermoplastic, Yellow, Solid, 4"	LFT	
Thermoplastic, Yellow, Broken, 4"	LFT	