

**KANKAKEE RIVER BASIN AND YELLOW RIVER BASIN  
DEVELOPMENT COMMISSION**

**Project Specifications**

**PHASE I – MARSHALL COUNTY CONSTRUCTION**

of

Phase I - Yellow River Bank Reconstruction & Sediment Mitigation

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**Kankakee River Basin and Yellow River Basin Development Commission**

6100 Southport Road,  
Portage, IN 46383  
Phone: (219) 861-7999

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END OF SECTION

**DIVISION 0**

**BIDDING AND CONTRACT  
DOCUMENTS**

SECTION 00010  
INDIANA CODE 2020. CHAPTER 9

**Indiana Code 2020. Chapter 9. Kankakee River Basin and Yellow River Basin  
Development Commission (KRBYRBDC)**

**IC 14-13-9-33 Indiana business preference; criteria**

Sec. 33. (a) As used in this section, "out-of-state business" refers to a business that is not an Indiana business.

(b) The commission may give a preference to an Indiana business that submits a bid under this article if all of the following apply:

- (1) An out-of-state business submits a bid.
- (2) The out-of-state business is a business from a state that gives public works preferences unfavorable to Indiana businesses.

(c) The commission shall establish criteria for determining the following:

- (1) Whether a bidder qualifies as an Indiana business under the rules.
- (2) When another state's preference is unfavorable to Indiana businesses.
- (3) The method by which the preference for Indiana businesses is to be computed.

(d) The commission may not give a preference to an Indiana business that is more favorable to the Indiana business than the other state's preference is to the other state's business.

As added by P.L.282-2019, SEC.8.

**IC 14-13-9-34 Indiana employment goal for public works projects awarded by the  
commission**

Sec. 34. (a) As used in this section, "resident of Indiana" means a person who is at least eighteen (18) years of age and is one (1) of the following:

- (1) A person who has registered a motor vehicle in Indiana.
- (2) A person who is registered to vote in Indiana.
- (3) A person who has a child enrolled in an elementary or a secondary school located in Indiana.
- (4) A person who derives more than one-half (1/2) of the person's gross income (as defined in Section 61 of the Internal Revenue Code) from sources in Indiana, according to the

provisions applicable to determining the source of adjusted gross income that are set forth in IC 6-3-2-2. However, a person who would otherwise be considered a resident of Indiana under this subdivision is not a resident of Indiana if a preponderance of the evidence concerning the factors set forth in subdivisions (1) through (3) proves that the person is not a resident of Indiana.

(b) When entering a bid under this chapter for a public works project, each contractor shall provide the commission with information on the number of residents of Indiana who will be employed by the contractor and the number of residents of Indiana who will be employed by any subcontractor of the contractor.

(c) The goal for a contract awarded by the commission for a public works project is to award the contract to a contractor who:

(1) employs residents of Indiana as at least ninety percent (90%) of the employees who work on the contract; and

(2) enters into subcontracts only with subcontractors who employ residents of Indiana as at least ninety percent (90%) of the employees who work on the subcontract.

DIVISION 0

BIDDING AND  
CONTRACT DOCUMENTS

SECTION 00020  
**INVITATION TO BID**  
KRBYRBDC

PHASE 1 - YELLOW RIVER BANK RECONSTRUCTION AND SEDIMENT MITIGATION  
**PHASE I – MARSHALL COUNTY CONSTRUCTION**

Sealed bids for the construction of **PHASE I – MARSHALL COUNTY CONSTRUCTION** will be received at the Executive Director's Office at 6100 Southport Road, Portage, IN 46368, **until 2 p.m. CST** (local prevailing time), on **August 6, 2021**. The bids will be opened and read aloud at the regularly scheduled Commission meeting at the same address immediately following the submittal deadline time. Details on the Commission meeting, which will be held online/virtually, will be made available to Contractors attending the prebid meeting.

This construction project is the **first of two parts** of the PHASE 1 - YELLOW RIVER BANK RECONSTRUCTION AND SEDIMENT MITIGATION. This PHASE I – MARSHALL COUNTY CONSTRUCTION consists of stabilizing approximately 1,850 linear feet of the Yellow River in Marshall County near the Marshall/Starke County Line. Construction activities will include clearing, tree removal and, channel and bank grading, structure installation, planting, seeding, and erosion control blanket installation.

The Project Documents are available at no cost and may be requested electronically from Ross St.Clair of Cardno, Inc. via email at [ross.st.clair@cardno.com](mailto:ross.st.clair@cardno.com) or by calling Ross St.Clair at (574) 586 4256. Furthermore, the Project Documents will be available on the KRBYRBDC website at <https://kankakeeandyellowrivers.org>.

No project documents will be sent out (3) days prior to the date of the bid opening.

A **mandatory prebid meeting** will be held at the site on **Tuesday, July 20 at 9 AM CST**. Access and parking will be northeast of the County Line Road Bridge which crosses the Yellow River. **Final day for questions** submitted to the Engineer will be end of day on **August 2, 2021** with any required addendum being issued the following day.

Proposals shall be completely executed and must be accompanied by an executed Modified Form 96, confirmation that copies of Addenda were received (if issued), and satisfactory bid security. A certified or cashier's check payable to the KRBYRBDC or a bid bond in an amount equal to five (5) percent of the bid amount must accompany each bid. All checks of unsuccessful bidders shall be returned to them by the Commission upon selection of successful bidder. The successful Bidder will be required to provide a Performance and Payment Bond each in the amount of one hundred (100) percent of the Contract amount.

Bidders must be experienced in the construction of the type of facilities to be built under the Contract(s) for which a bid is submitted.

In determining the lowest qualified, responsive and responsible bidder, the KRBYRBDC will consider the Total Base Bid made for the Contract. The KRBYRBDC will also consider all other relevant facts mentioned in the Project Documents such as experience in completing this type of work.

The KRBYRBDC reserves the right to reject any and all bids or to waive any informalities in the bidding, should the Board deem it to be in the public interest to do so.

Authorized and published by the authority of the KRBYRBDC.

Kankakee River Basin and Yellow River Basin Development Commission  
/s/ Scott Pelath, Executive Director



SECTION 00100  
INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.1 SUBMISSION OF BIDS

- A. Bids will be received at the Executive Director's Office at 6100 Southport Road, Portage, IN 46368, up to the local prevailing time and date set forth in the Invitation to Bid. The bids will be opened and read aloud beginning at the local prevailing time and date set forth in the Invitation to Bid.
- B. Each Bid shall be enclosed in a sealed envelope, clearly identified with the name of the project, date of bid opening, name of bidder, and words "**PHASE I – MARSHALL COUNTY CONSTRUCTION**". The envelope shall be addressed to the KRB YRBDC.
- C. To be accepted, any Bid must be received by the Owner prior to the bid opening time referenced above. Bids received after the time and date specified herein will be returned to the Bidder unopened.
- D. The Owner may waive any informalities or minor defects or reject any and all Bids without incurring any liability should it deem it to be in the public interest to do so.
- E. A bidder may withdraw his Bid by letter with a notarized signature(s) or, with proper identification, by personally securing his Bid at any time prior to the time stated herein for the opening of Bids. A telephone request to withdraw a Bid will not be considered. No bidder may withdraw his Bid within 60 days after the actual time and date opening thereof. Should there be any reason why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder.

1.2 CONDITIONS AFFECTING THE WORK

- A. Bidders shall attend the mandatory prebid meeting and thoroughly inform himself as to the actual conditions and requirements of the Work, including risks, means of access, ground and surface water levels, character of the soil and subsoil, restrictions, regulations, labor and materials required, and all other conditions and factors, local and otherwise, which affect the prosecution and completion of the Work and the cost thereof, including the availability and cost of labor, and available facilities for transportation, and handling and storage of materials and equipment. It must be understood and agreed that all such factors have been properly investigated and considered in the preparation of the Bid submitted, as there will be no subsequent financial adjustment to the Contract awarded hereunder, which is based on the lack of such prior information or its effect on the cost of the Work.

- B. Bidder shall also thoroughly examine and be familiar with the Project and by such other means as he prefers to determine exact nature and scope of the work and requirements of the Owner.
- C. Bidders are directed to “Specific Provisions” of this Project Document for requirements relative to the Contract which may affect the cost of the work.
- D. Bidder’s attention is directed to Senate Enrolled Act 520, Public Law 63-1987 which regulates the use of foreign steel.

### 1.3 PREPARATION OF BIDS

- A. The Project Manual includes a copy of the Bid Form which shall be used by the bidder in submitting his Bid. Bids shall not contain qualifications or recapitulation of the work to be done. Writing shall be legible.
- B. In general, Bids that contain omissions, erasures, alterations, or additions not called for, conditional or alternate bids not called for, or that are irregular in any way, or Bids otherwise regular which are not accompanied by the required bid bond specified herein may be rejected as informal or insufficient. No partial bids will be considered unless requested specifically.
- C. If the bidder is a corporation, the Bid shall be signed, in ink, in the name and under the seal of the corporation by a duly authorized officer of the corporation, with the designation of his official capacity, and properly attested. The Bid shall show the state in which the corporation is chartered. If it is a foreign corporation, the Bid shall show whether or not it is licensed to transact business in the State of Indiana.
- D. If the bidder is a partnership, the Bid shall be signed, in ink, in the name under which the organization is doing business, by a partner of the firm.
- E. If the bidder is a sole proprietorship, he shall sign the Bid, in ink, in person or by agent, stating the name, if any, under which he is doing business.
- F. In every case, the Bid shall show the present business address of the bidder, at which address communications will be received and service of notices accepted.
- G. When Bids are signed by an agent of the bidder, a power of attorney evidencing his authority to act as the bidder’s agent shall accompany the Bid.
- H. The name of each person signing the Bid shall be typed or printed below his signature.
- I. Bidders are advised that an improper execution of the Bid may result in the disallowance of the bid, therefore, extreme care should be used in executing their Bids.

J. Materials or labor may not be directly noted in the Project Documents, but are necessary to the proper completion of the project for the obvious intent thereof, the bidder shall understand the same to be implied and shall provide for them in his bid price as fully as if they were noted and described.

K. The Owner will cooperate with the contractor in providing the necessary documentation to exempt the project from taxes as permitted by law. The Contractor shall be responsible for the initiation of this exemption. The Contract price shall be based upon exemption from all taxes as allowed by law. The Contractor shall be responsible for paying all other taxes required by law.

**L. Bidder must complete and submit the following items as the “Bid Package”:**

- 1) Itemized Bid on the furnished Bid Form**
- 2) Contractor’s Bid for Work (Modified Form 96) on the furnished form.**
- 3) Supporting information as required by Modified Form 96.**
- 4) Financial Statement as required by Modified Form 96.**
- 5) Bid Security (If bond, use form furnished)**
- 6) Confirmation of Receipt of all Addenda (on Bid Form)**

**1.4 MODIFICATION OF BIDS**

A. Written and telegraphic modifications of Bids will be considered only if received prior to the time stated for receipt of Bids. Submit written modifications in a sealed envelope, identified as required for Bids except that the Phrase “Modification of Bid” shall be used. Modifications made orally or by telephone will not be considered.

B. Bidders are cautioned that, in case of modification involving an increase in the base bid sum, the bid deposit shall be ample or be increased to cover the new base bid sum or the entire Bid may be rejected.

**1.5 RESPONSIVENESS AND RESPONSIBILITY**

A. Any bid determined to be non-responsive or any bid submitted by a bidder determined to be non-responsible will be rejected.

B. Any bid which fails to conform to the essential requirements of the invitation for bids, such as specifications, or delivery schedule will be rejected as non-responsive.

C. A bid may be rejected where the bidder imposes conditions which would modify requirements of the invitation for bids or limit his liability to the Owner so as to give him an advantage over other bidders. For example, bids may be rejected in which the bidder:

1. Attempts to protect himself against future changes in conditions such as increased costs, if total price to the Owner cannot be determined for bid evaluation.

2. Fails to state a price and, in lieu thereof, states that price shall be “price in effect at the time of delivery”.
  3. States a price but qualifies such price as being subject to “price in effect at the time of delivery”.
  4. Where not authorized by the invitation, conditions or qualifies his bid by stipulating that the bid is to be considered only if, prior to date of award, bidder receives (or does not receive) award under a separate procurement.
  5. Limits rights of Owner under any clause of Project Documents. However, a low bidder may be requested to delete objectionable conditions from his bid if these conditions do not go to the substance, as distinguished from the form of the bid. A condition goes to the substance of a bid where it affects price, quantity, quality, or delivery of the items offered.
- D. Any bid may be rejected if the Owner determines that it is unreasonable as to price.
- E. Bids received from any person or concern debarred or ineligible shall be rejected if the period of debarment or ineligibility has not expired.
- F. Where bid security is required and a bidder fails to furnish it in accordance with the requirements of the invitation for bids, the bid may be rejected.
- G. After submitting a bid, if a bidder transfers all of his assets or that part of his assets related to the bid during the period between the bid opening and the award, the transferee may not take over the bid and the bid may be rejected.
- H. Low bids received from bidders determined to be non-responsible may be rejected. A responsible bidder is one who meets all of the following requirements.
1. Has adequate financial resources, or the ability to secure such resources.
  2. Has the necessary experience, organization, and technical qualifications, and has or can acquire, the necessary equipment to perform the proposed work.
  3. Is able to comply with the required performance schedule or completion date, taking into account all existing commitments.
  4. Has a satisfactory record of performance, integrity, judgment and skills.
  5. Is qualified and eligible to receive an award under all applicable laws and regulations.

## 1.6 AWARD OF CONTRACT

- A. The Owner shall make an award on each separate Contract to the responsive and responsible bidder with the lowest Total Base Bid and all other relevant facts which may be legally considered.
- B. The party to whom a Contract is awarded will be required to execute the Contract and provide the Performance and the Payment Bonds, all Certificates of Insurance, and a list of Subcontractors within ten (10) calendar days from the date when the Notice of Award is delivered to the Bidder. If Contract and/or Bond Forms other than those provided in the Project Manual are used they must contain the provisions called out in the forms provided. Any forms other than those provided in the Project Manual are subject to review and approval by the Owner's attorney.
- C. The Contract shall be executed in two (2) original documents. In case of failure of the Bidder to execute the Contract and provide the required Bonds and Certificates of Insurance, the Owner may, at his option, consider the Bidder in default, in which case the Bid Bond accompanying the bid shall become the property of the Owner.

## 1.7 ADDENDA AND INTERPRETATION OF PROJECT DOCUMENTS

- A. Bidder's attention is directed to the section "Addenda"

## 1.8 BIDDER'S QUALIFICATIONS

- A. Bidder's attention is directed to the section "General Conditions"

## 1.9 CONTRACT TIME AND LIQUIDATED DAMAGES

- A. Bidder's attention is directed to the sections "Bid", "Contract", and "General Conditions"

## 1.10 PREVAILING WAGE RATES

- A. Bidder's attention is directed to the Section "General Conditions"

END OF SECTION

SECTION 00300  
BID

PART 1 -GENERAL

1.1 BID

- A. To the KRBYRBDC, hereinafter called "Owner", for the:  
**PHASE I – MARSHALL COUNTY CONSTRUCTION**
- B. The Undersigned, as Bidder, declares as follows:
1. The only parties interested in this Bid as Principals are named herein;
  2. This Bid is made without collusion with any other person, firm, or corporation;
  3. No officer, agent, or employee of the Owner is directly or indirectly interested in this Bid;
  4. The Bidder has carefully examined the site of the proposed Work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and he has carefully read and examined the Project Documents comprised of the Project Manual and Plans, the proposed Contract, any and all addenda, and knows and understands the terms and provisions thereof;
  5. The Bidder understands that information relative to subsurface and other conditions, natural phenomena, existing pipes and other structures (surface or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and other conditions, natural phenomena, existing pipes and other structures (surface or subsurface) actually encountered will be the same as those shown on the Plans or in any of the Project Documents and he agrees that he shall not use or be entitled to use any such information made available to him through the Project Documents or otherwise obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or the Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by him and the subsurface or other conditions, natural phenomena, existing pipes and other structures (surface or subsurface) actually encountered during the construction work, and he has made due allowance therefore in this bid and;
  6. The Bidder understands that the quantities of work tabulated in this Bid or indicated in the Project Documents are only approximate and subject to increase or decrease as deemed necessary by the Engineer.

- C. The undersigned, as Bidder, agrees that, if this Bid is accepted, he will contract with the Owner, as provided in the Project Documents, this Bid Form being part of said Project Documents, and that he will perform all the work and furnish all the materials apparatus, appliances, tools, supplies and all other things required by the Project Documents in the manner and within the time therein prescribed and according to the requirements therein set forth, and that he will take in full payment therefore the lump sum or unit price applicable to each item of the Work as stated in the Itemized Bid Schedule.
- D. Bidders must bid on each item included in the Contract. All entries in the entire Bid must be made clearly and typed or hand-written in ink, prices must be written in figures. Bidders shall insert extended item prices obtained from quantities and unit prices. In the event that there is a discrepancy between the prices in words and figures, the bid price written in words shall govern. In the event of mathematical errors in the Bid, the Bid total will be the corrected sum of: 1) the lump sum -prices as bid, and 2) the product of the written unit prices as bid multiplied by the quantities stated.
- E. As a part of the Bid, the Bidder shall complete the following Itemized Bid Schedule, including in the appropriate item, all project costs associated with the item including equipment, materials, bonds, insurance policies, and other miscellaneous costs. A bid price for each item fairly reflecting the cost of that item must be provided such that the total of all items shall equal the total price bid.
- F. In submitting this Bid, it is understood that the Owner reserves the right to reject any and all bids. It is agreed that this Bid may not be withdrawn for a period of sixty (60) days.
- G. The Undersigned, as Bidder, further agrees that for extra work, if any, performed in accordance with the terms and provisions of the Project Documents, he will accept compensation as stipulated therein in full payment for such extra work.
- H. If the Bidder is awarded the Contract for this work, the undersigned agrees to substantially complete the work within the following number of consecutive calendar days measured after the date of the NOTICE TO PROCEED.

### **65 CALENDAR DAYS**

Substantially complete shall mean fully functional for the intended purposes and final stabilization complete. Delays due to weather, as approved by the Engineer, would constitute approved extensions. The Notice to Proceed is anticipated to be issued August 20, 2021.

**Liquidated damages for each calendar day of delay shall be:**

**Five Hundred Dollars (\$500.00)**

I. If the Owner shall accept this Bid by issuing a Notice of Award to the Bidder, the Bidder will duly execute and acknowledge the contract and furnish, duly executed and acknowledged, the required bonds and certificates of insurance and deliver same to the Owner within ten (10) days after Notice of Award is delivered to Bidder. The Owner within ten (10) days of receipt of same will execute the Contract and return to the Bidder a copy thereof.

J. Should the Bidder fail to fulfill any of his agreements as hereinabove set forth, the Owner shall have the right to retain the bid surety as liquidated damages.

K. Bidder acknowledges receipt of the following addenda (list numbers) \_\_\_\_\_  
\_\_\_\_\_ and has incorporated the requirements of said addenda into the Bid.

L. The Bidder, by submittal of this Bid, agrees with the Owner that the amount of the bid security deposited with this Bid fairly and reasonably represents the amount of damages the Owner will suffer due to the failure of the Bidder to fulfill his agreements as above provided.

M. \_\_\_\_\_  
(Name of Bidder)

\_\_\_\_\_  
(Signature of Authorized Representative)

\_\_\_\_\_  
(Title of Authorized Representative)

\_\_\_\_\_  
(Business Address)

Date \_\_\_\_\_

N. The Bidder is a [ ] sole proprietorship, [ ] partnership, or [ ] corporation incorporated in the State of \_\_\_\_\_.

If the Bidder is a corporation, affix corporate seal and give the names of its president, treasurer, and general manager if any; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.

O. Name and address of corporate officers, partners, or individual as required above:

\_\_\_\_\_



Name	Address
------	---------

Name	Address
------	---------

Name	Address
------	---------

- P. The names and addresses of all stockholders in the corporation who own 10% or more of its stock of any class or all partners in the partnership who own a 10% or greater interest therein, are as follows:

Name	Address
------	---------

Name	Address
------	---------

Name	Address
------	---------

BASE BID (SHEET 1 OF 2)					
Line Item No.	Quantity	Unit	Description	Unit Price	Total Price
1	1	LS	MOBILIZATION AND DEMOBILIZATION		
2	1	LS	CLEARING, GRUBBING & OBSTRUCTION REMOVAL (includes trees <10" DBH)		
3	1	LS	TEMPORARY EROSION & SEDIMENT CONTROL		
4	45	EACH	TREE AND STUMP REMOVAL, 10-17" DBH		
5	37	EACH	TREE AND STUMP REMOVAL, 18" + DBH		
6	10,100	CYS	BANK GRADING		
7	1,050	CYS	FLOOD BENCH GRADING		
8	2.3	ACRE	PERMANENT SEEDING		
9	260	EACH	TREE AND SHRUB PLANTING		
10	2,950	SYS	COIR MATTING (700 gram coir)		
11	3,800	SYS	EROSION CONTROL BLANKET (NAG C125BN or equivalent)		
12	4,000	SYS	STRAW BLANKET (S75BN or equivalent)		
13	0.9	ACRE	HYDRAULICALLY APPLIED MULCH		
14	4	EACH	BOULDER GLIDE STRUCTURE (Existing Bedstone)		
15	145	LF	CONSTRUCTED RIFFLE WITH BOULDER CLUSTERS (Existing Bedstone)		
16	3	EACH	J-HOOK		
17	391	LF	TOEWOOD WITH SOIL LIFT		
18	6	EACH	LOG SILL		
19	15	TN	MISCELLANEOUS INDOT REVETMENT RIPRAP		
BASE BID (SHEET 2 OF 2)					

20	15	TN	MISCELANEOUS INDOT CLASS I RIPRAP		
21	15	TN	MISCELANEOUS LIMESTONE SHOT ROCK (SIZED 24-36")		
22	1	LS	BONDING & INSURANCE		
<b>TOTAL BASE BID:</b>					\$

(Modified Form 96)

**BID OF**

\_\_\_\_\_  
\_\_\_\_\_  
(Contractor)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

\_\_\_\_\_  
\_\_\_\_\_

**FOR  
KRBYRBDC**

**PHASE I – MARSHALL COUNTY CONSTRUCTION**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Filed \_\_\_\_\_, 20\_\_\_\_.

Action Taken \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTRACTORS BID FOR WORK  
(Modified Form 96)

PART I

(To be completed for all bids)  
(Please type or print)

Date: \_\_\_\_\_

1. Owner: KRBYRBDC

2. County: MARSHALL

3. Bidder (Firm): \_\_\_\_\_

Address: \_\_\_\_\_

City/State: \_\_\_\_\_

4. Telephone: \_\_\_\_\_

5. Agent of Bidder (if applicable): \_\_\_\_\_

Pursuant to notices given, the undersigned offers to furnish labor and/or material necessary to complete the project of the KRBYRBDC in accordance with plans and specifications of said unit for the sum of \_\_\_\_\_

dollars

\$\_\_\_\_\_. The undersigned further agrees to furnish a bond or certified check with this bid for an amount specified in the notice of the letting. If alternative bids apply, submit a proposal for each in accordance with the notice.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract. If the bid is to be awarded on a unit basis, the itemization of units shall be shown on a separate attachment. The Contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

## NON -COLLUSION AFFIDAVIT

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale.

## OATH AND AFFIRMATION

I affirm under the penalties of perjury that the foregoing facts and information are true and correct to the best of my knowledge and belief.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Name of Organization)

By \_\_\_\_\_

\_\_\_\_\_  
(Title of Person Signing)

ACKNOWLEDGMENT

STATE OF \_\_\_\_\_ )  
 ) SS:  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_ being duly sworn, deposes and says  
that he is (title)\_\_\_\_\_ of the above (organization)\_\_\_\_\_  
\_\_\_\_\_ and that the statements contained in the foregoing bid,  
certification and affidavit are true and correct.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ .

\_\_\_\_\_  
Signature Notary Public

\_\_\_\_\_  
Printed Name

My Commission Expires: \_\_\_\_\_

County of Residence: \_\_\_\_\_

ACCEPTANCE

The above bid is accepted this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, subject to  
the following conditions: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Contracting Authority Members:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## PART II

(Complete sections I, II, III and IV for all state and local public works projects as required by statutes.)

Owner: KRB YRBDC

Bidder (Firm): \_\_\_\_\_

Date: \_\_\_\_\_

These statements to be submitted under oath by each bidder with and as a part of his bid. Attach additional pages for each section as needed.

## SECTION 1 EXPERIENCE QUESTIONNAIRE

1. What stream stabilization/restoration projects has your organization completed in the past 10 years?

[illegible]

2. What stream stabilization/restoration projects is your organization now in process of constructing?

[illegible]



3. Have you ever failed to complete any work awarded to you? If yes, where and why?

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4. List references (atleast 3) from clients for which you have performed similar work.

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SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE  
(Attach separate sheets as required)

1. Explain your plan or layout for performing proposed work.
2. If you intend to sublet any portion of the work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you expect to require a bond.
3. What equipment do you intend to use for the proposed project?
4. Have you made contracts or received offers for all materials within prices used in preparing your proposal?

SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of bidder's financial statement is mandatory. Any bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the contract must be specific enough in detail so that said governing body can make a proper determination of the bidder's capability for completing the projected if awarded.

SECTION IV OATH AND AFFIRMATION

I hereby affirm under the penalties of perjury that the facts and information contained in the foregoing bid for public works are true and correct to the best of my knowledge and belief.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Name of Organization)

By \_\_\_\_\_

\_\_\_\_\_

(Title of Person Signing)

## ACKNOWLEDGMENT

STATE OF \_\_\_\_\_)  
 \_\_\_\_\_)SS:  
 COUNTY OF \_\_\_\_\_)

\_\_\_\_\_ being duly sworn, deposes and says that he

is (title)\_\_\_\_\_ of the above (organization)\_\_\_\_\_

\_\_\_\_\_ and that the answers to the questions in the foregoing questionnaires and all statements therein contained are true and correct. Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

(Notary Public)

My Commission Expires: \_\_\_\_\_

County of Residence: \_\_\_\_\_

END OF SECTION

SECTION 00410  
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_  
\_\_\_\_\_ as Principal, and \_\_\_\_\_  
\_\_\_\_\_, as Surety, are hereby held and firmly bound unto the  
KRBYRBDC, hereinafter called "Owner" in the penal sum of \_\_\_\_\_ for  
the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves,  
successors and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. The Condition of the above  
obligation is such that whereas the Principal has submitted to the Owner, certain Bid attached  
hereto and made a part hereof to enter into a Contract in writing for the construction of:

**PHASE I – MARSHALL COUNTY CONSTRUCTION**

NOW THEREFORE,

- a. If Said Bid shall be rejected, or
- b. If Said Bid shall be accepted and the Principal shall within ten (10) calendar days of receipt of Notice of Award execute and deliver a Contract in the form attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the Agreement created by the acceptance of said Bid;

then this obligation shall be void, otherwise the same remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by an extension of the time which the Owner may accept such Bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be assigned by their proper officers, the day and year first set forth above.

---

Principal

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Surety

By: \_\_\_\_\_

IMPORTANT: Surety Companies executing bonds shall appear on the Treasury Department's most current list (circular 570 as amended) and be authorized to transact business in the State of Indiana.

END OF SECTION

SECTION 00460  
NOTICE OF AWARD

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner: **KRBYRBDC**

Project: **PHASE I – MARSHALL COUNTY CONSTRUCTION**

The Owner has considered the Bid submitted by you for the above captioned Project Work in response to

its Invitation to Bid dated \_\_\_\_\_, 20\_\_ and the Project Documents.

You are hereby notified that your Bid has been accepted for construction of the Work in the amount of  
\$\_\_\_\_\_.

You are required by the Project Documents to execute the Contract and furnish the required Contractor's Performance and Payment Bonds, Insurance Certificates, and List of Subcontractors, within ten calendar days from the receipt of this Notice to you.

If you fail to execute said Agreement and to furnish said Bonds within ten days from the delivery of this Notice, the Owner will be entitled to consider all your rights arising out of its acceptance of your Bid as abandoned and as a forfeiture of your Bid security. The Owner will be entitled to such other rights as may be granted by law.

The Bidder is required to acknowledge receipt of this Notice of Award by returning a signed copy of this Notice to the Owner.

Dated this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

KRBYRBDC

By\_\_\_\_\_

Title\_\_\_\_\_

ACKNOWLEDGED FOR BIDDER BY:

---

Signature

---

Typed or Printed Name and Title

END OF SECTION

SECTION 00500  
CONTRACT

This Contract made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between The KRB YRBDC, hereinafter called "Owner" and \_\_\_\_\_, hereinafter called "Contractor".

WITNESSED: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and fully complete the: **PHASE I – MARSHALL COUNTY CONSTRUCTION**
2. The Contractor will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the Project described herein.
3. The Contractor will commence the Work required by the Project Documents upon receipt of the Notice to Proceed and will complete the Contract work within sixty (65) consecutive calendar days unless the period for completion is extended by the Owner. Substantial completion, as defined in Section 00300 Bids, to be completed in sixty-five (65) days. Contractor agrees to pay as liquidated damages, and not as a penalty, the sum of Five Hundred Dollars (\$500.00) for each consecutive calendar day of delay in completing the Contract work and the remainder of the work under this Contract after expiration of the time herein limited for its completion including any approved extensions of time because of unavoidable delay. Delays due to weather, as approved by the Engineer, would constitute approved extensions. Live staking which requires planting during the dormant season, will not be required for substantial completion but will be required for final release of retainage.
4. The Contractor agrees to perform all of the Work described in the Project Documents and to comply with the terms therein for the sum of \_\_\_\_\_, dollars  
(\$ \_\_\_\_\_), as shown in the Bid dated \_\_\_\_\_, 20\_\_\_\_.
5. The Term "Project Documents" means and includes the following:  
Invitation to Bid  
Instructions to Bidders  
Bid  
Contractor's Bid for Public Work (Form 96) including Non-Collusion Affidavit  
Contractor's Financial Statement  
Bid Security  
Alternates (as requested)



Notice of Tentative Award (if used)

Notice of Award

Contract

Notice to Proceed  
Bonds and Insurance  
Performance Bond  
Payment Bond  
Guarantees  
Insurance  
General Conditions  
Additional Articles  
Project Manual, including Specifications  
Plans

Addenda:

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.

Any and all other documents or papers included or referred to in the foregoing documents.

6. The Owner will pay the Contractor in the manner and at such times and in such amounts as required by the Project Documents.
7. In case any action at law or suit in equity is brought against the Owner, or any officer or agent thereof, including the Engineer, for or on account of the failure, negligent act, omission, or neglect of the Contractor to do and perform any of the covenants, acts, matters, or things by this Contract undertaken to be done or performed, or for the injury or damage caused by the negligence of the Contractor or his subcontractors, workmen, or suppliers or machinery and parts thereof, equipment, power, tools, and supplies incurred in the fulfillment of the Contract, the Contractor shall indemnify and hold harmless the Owner, and officers and agents of the Owner, including the Engineer, or and from all losses, damages, costs, expenses, judgments, or decrees whatever arising out of such action of suit that may be brought as aforesaid.
8. The Contractor (if a Corporation) hereby certifies that it is a [ ] Corporation chartered under the laws of the State of Indiana or [ ] Foreign Corporation registered to do business in the State of Indiana.
9. The Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract. Neither party to the Contract shall assign, sublet or transfer the Contract in whole or in part without the written consent of the other, nor shall

the Contractor assign any moneys due or to become due to him hereunder without the prior written consent of Owner, and any attempted assignment hereunder without the previous written consent of Owner shall be void.

10. The Owner and Contractor acknowledge that this is a unit price based contract. The quantity amounts contained within the itemized bid form are estimated, and subject to increase or decrease throughout the construction of the project. Final payment will be made based upon field measured quantities of items installed and accepted.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized representatives, this Contract, in two copies, each of which shall be deemed an original on the date first above written.

OWNER

KRBYRBDC

6100 Southport Road  
Portage, IN 46368

By \_\_\_\_\_

Scott Pelath

ATTEST:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed or Typed Name)

\_\_\_\_\_  
(Title)

CONTRACTOR:

\_\_\_\_\_  
(SEAL)

By \_\_\_\_\_  
(Signature of Authorized Representative)

ATTEST:

Name \_\_\_\_\_  
(Printed or Typed Name of authorized Rep.)

\_\_\_\_\_  
(Signature)

Title \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Printed or Typed Name)

Address \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Title)

\_\_\_\_\_

If the Contractor is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign Contracts on behalf of the corporation; if Contractor is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner; and if Contractor is an individual, his signature shall be placed above. If signature is by an agent other than an officer of a corporation or a member of a partnership, a power-of-attorney must be attached hereto. Signature of Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgment.

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

Before me the undersigned, a Notary Public in and for said County and State, personally appeared \_\_\_\_\_ and acknowledged the execution of the foregoing instruments this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Signature of Notary Public  
My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Printed or Typed Name  
County of Residence: \_\_\_\_\_

SECTION 00510  
LIST OF SUBCONTRACTORS

The Bidder must complete and submit with the executed contract, the following list of all firms to be employed in performing the work on this Project. This list may not be altered or added to without the written consent of the Owner.

Project Title: **PHASE I – MARSHALL COUNTY CONSTRUCTION**

<u>Subcontractor</u>	<u>Address</u>	<u>Class of Work To be Performed</u>	<u>Estimated Dollar Volume of Work to be Performed by Subcontract</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\_\_\_\_\_  
(Name of Contractor)

By: \_\_\_\_\_  
(Signature of Authorized Representative)

\_\_\_\_\_  
(Title of Authorized Representative)

Date: \_\_\_\_\_

END OF SECTION

SECTION 00521  
INSTRUCTION SHEET

FOR A1A DOCUMENT A312, PERFORMANCE BOND AND PAYMENT BOND

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A. GENERAL INFORMATION

A1A Document A312 is a new document which combines two separate bonds into one for. This is not a single combined Performance and Payment Bond. It is customary to issue these two bonds simultaneously and to pay one premium for both. The separate procurement of one bond without the other will normally not reduce the premium.

B. COMPLETING THE A312 FORM

1. Modifications

Users are encouraged to consult with their professional advisor (attorney or bond specialist) with respect to completing or modifying the form. Legal counsel should also be sought concerning the effect of federal, state and local laws on the terms of this Document.

Generally, modifications to the Performance Bond and Payment Bond may be made by filling in the box on the title page of each bond and stating any deletion or addition on the last page of each bond or on an additional page. Any such modifications are subject to review and approval by the KRBYRBDC.

2. General

These instructions apply equally to the Performance Bond and to the Payment Bond. Both bonds require identical information on them, but each bond form must be executed separately. Even though the A312 Document contains both bonds, they are still very separate bonds. The completion of one bond (e.g., the Performance Bond) is not sufficient to bind the parties to the other (e.g., the Payment Bond). Users should be careful not to mix one bond with the other. A common mistake is to fill in the cover page of the Performance Bond and to sign the signature page of the Payment Bond. In such a case, it is likely that neither bond will become binding.

3. Title Page of Each Bond (Pages 1 and 4)

Identification of Parties: The Contractor and Surety should be identified along with the Agent or Broker. It is especially important that the Contractor and Surety be identified by using their full legal names and addresses, including the legal status of the parties; sole

proprietorship, general partnership, joint venture, unincorporated association, limited partnership, corporation (general or professional), etc. The identification of the Owner's Representative and the Agent or Broker is for information only, since they are not parties to the bond agreement.

Description of the Construction Contract: The Construction Contract should be described by date and amount and by the official name and location of the Project as used in the Construction Contract. The amount of the Construction Contract should be in both written and numerical form.

Bond Amount: The dollar amount of the bonds should be in both written and numerical form in the amount specified in the Section "Owners Instructions for Bid Security, Bonds and Insurance".

Bond Date: This date should not be earlier than the date of the Construction Contract which is adopted by reference.

#### C. EXECUTION OF THE BONDS

Each bond must be separately signed by the Contractor and the Surety on the title page of each bond (pages 1 and 4). Additional space is provided on the last page of each bond (pages 3 and 6) for the signatures of additional parties. The parties executing (signing) the bond should indicate their company, print their name and title, and impress the corporate seal, if any. Where appropriate, attach a copy of the resolution or bylaw authorizing the individual to act on behalf of the firm or entity. Evidence of authority to sign on behalf of each party should be obtained. As to the Surety, this usually takes the form of a power of attorney issued by the surety company to the agent who signs on its behalf.

END OF SECTION

SECTION 00550  
NOTICE TO PROCEED

PART 1 - GENERAL

1.1 ISSUANCE

The Notice to Proceed with construction will be issued within ten days of the execution of the Contract by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within this period, the time may be extended by mutual agreement between the Owner and the Contractor. If the Notice to Proceed with construction has not been issued within the ten-day period or within the period mutually agreed upon, the Contractor may terminate the Contract without further liability on the part of either part.

1.2 NOTICE TO PROCEED FORM

To:

Date:

Project: **PHASE I – MARSHALL COUNTY CONSTRUCTION**

You are hereby notified to commence Work in accordance with the Contract dated  
\_\_\_\_\_, 20\_\_\_\_.

KRBYRBDC,

By\_\_\_\_\_

Title\_\_\_\_\_

END OF SECTION



SECTION 00600  
BID SECURITY, BONDS AND INSURANCE

PART 1 - BID SECURITY

1.1 GENERAL

Each Bid must be accompanied by bid security in the form of a certified check, or bid bond payable to the KRBYRBDC in the amount stipulated in Owner's Instructions for Bid Security, Bonds and Insurance as a guarantee that the bidder, if the Bid is accepted, will execute and file the proposed Contract, and Bonds, and Certificates of Insurance within ten days after receipt of Notice of Award. No interest will accrue or be payable on any form of bid security.

1.2 SIGNATURES AND SURETY LICENSE

Attorney's-in-fact who execute Bid Bonds must file with each bond a certified and effective dated copy of their power of attorney.

All bonds shall be issued by sureties licensed to conduct business in the State of Indiana.

1.3 BID BOND FORM

A Bid Bond form is provided in the Project Manual for the convenience of the Bidder. If a form other than that provided is used it must contain all of the provisions of the form provided, and will be subject to the review and approval of the Owner's attorney.

PART 2 - BONDS

2.1 CONTRACT SECURITY

The Contractor shall within ten (10) days after delivery of the Notice of Award, furnish the Owner with a Performance Bond and a Payment Bond, each in penal sums in the amount stipulated in the Section "Owner's Instructions for Bid Security, Bonds and Insurance", conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Project Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the Work provided by the Project Documents. Such Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the Work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on any such Bond is declared bankrupt or loses its right to do business in the state in which the Work is to be performed or is removed from

the list of Surety Companies accepted on Federal Bonds, the Contractor shall within ten (10) days after notice from the Owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such Bond shall be paid by the contractor. No further payments will be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the Owner.

The Performance bond shall remain in full force and effect through the guarantee period.

## 2.2 SIGNATURES AND SURETY LICENSE

Attorneys-in-fact who sign Performance and/or Payment Bonds must file with each bond a certified and effective dated copy of their power of attorney

All bonds shall be issued by sureties licensed to conduct business in the State of Indiana.

## 2.3 BOND FORMS

The Performance and Payment Bond forms included herein shall be used by the Bidder to whom award is given. If other forms are used, or if modifications are made to the forms then said forms and/or modifications are subject to approval by the Owner's attorney.

# PART 3 - INSURANCE

## 3.1 INDEMNIFICATION

A. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorneys fees, arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) 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 therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by the negligent act or omission of a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this subsection.

B. In any and all claims against the Owner or the Engineer or any of their agents or employees by any employee of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this subsection shall not be limited in any

way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

- C. The acceptance by the Owner or his representative of any certification of insurance providing for coverage other than is required by the Project Documents to be furnished by the Contractor shall in no event be deemed a waiver of any of the requirements for this indemnification.

### 3.2 INSURANCE

- A. Prior to execution of the Contract by the Owner and until final completion and acceptance of the Work and expiration of the guarantee period provided for in this Contract, the Contractor shall procure and maintain insurance of the types specified and to the limits specified. All insurance shall be obtained from companies licensed to do business in the State of Indiana or having at least a Best and Company rating of A-VI for 1989 (or latest edition), and shall, at no cost to the Owner or Engineer, name the Owner and the Engineer as additional insureds on all of the insurance coverages specified.
- B. Insurance shall be in such forms as will protect the Contractor, his subcontractors, or anyone directly or indirectly employed or engaged by him, from all claims and liability for damages for bodily and personal injury, including accidental death, and for property damage, which may arise from operations under the Contract, whether such operations be by the Contractor, his subcontractors, or by anyone directly or indirectly employed by him.

### 3.3 REQUIRED INSURANCE

The following types of insurance shall be provided by the Contractor in the coverages indicated in the section "OWNER'S INSTRUCTIONS FOR BID SECURITY, BONDS AND INSURANCE."

- A. Workmen's Compensation covering the statutory requirements where the work is to be performed and including Employers Liability.
- B. Comprehensive General Liability occurrence form to cover bodily injury, personal injury, property damage including Broad Form Property Damage, Broad Form Blanket Contractual Liability to cover the liability assumed by the Contractor for indemnification, Products/Completed Operations insurance for two (2) years after the completion of the project, Premises and Operations, Contractor's Protective Liability and Personal Injury Liability.

The Comprehensive general liability policy will not contain any exclusions for blasting, explosion, collapse or underground, commonly referred to as the XCU

exclusion and any deductibles or self-insured retentions shall be for the account of the Contractor.

Contractor shall provide Owner with ISO Endorsement CG 25031185 Amendment - Aggregate Limits of Insurance per Project for the limits required.

- C. Owners and Contractor's Protective Liability Insurance to protect the Owner against claims for injury and damage arising out of the operations of the Contractor or subcontractors during the performance of the Work.
- D. Comprehensive Automobile Liability Insurance covering bodily injury and property damage for owned, non-owned, and hired vehicles. The coverage shall also contain ISO Endorsement CA 0029 (1/88) edition or its equivalent.
- E. All Risk Builders Risk Insurance including the perils of flood, earthquake collapse, and theft coverage in an amount equal to the full contract value. Insurance shall protect the insurable interest of the Owner, Contractor and Subcontractors for materials and supplies in transit, off-site storage and site storage as well as the constructed improvements at the site.

No blasting is anticipated to be required to complete the Work under this Contract. Should a need arise for blasting, the Contractor, shall, prior to any blasting, justify in writing such need to the Engineer and obtain the Engineer's written permission, if granted, for specific blasting. In addition, upon receipt of such permission from the Engineer, the Contractor shall, prior to any blasting, present current certificates of insurance acceptable to the Engineer attesting to the blasting and explosion coverage to the limits of the excess (umbrella) liability insurance then in effect, obtain blast survey, results of which shall be provided to the Engineer who may withdraw his permission on the basis of such survey, and obtain such approvals as necessary, including but not limited to the fee owner of pertinent right-of-way and appropriate federal, state, and local agencies. Any permitted blasting shall comply with applicable federal, state and local laws.

No policies may contain deductibles or retentions larger than \$25,000 without the expressed consent of the Owner.

All policies shall contain an endorsement that the Owner will be notified in writing of any cancellation or restrictive amendments at least 90 days prior to the effective date of such cancellation or change.

Certificates from the Contractor's insurance carriers stating the coverages provided, the limits of liability, and expiration dates shall be filed in triplicate with the Owner prior to Owner's execution of the Contract.

Renewal certificates must be furnished by the Contractor to the Owner prior to the expiration date of any of the initial insurances.

No insurance required or furnished hereunder shall in any way relieve the Contractor of or diminish any of his responsibilities, obligations and liabilities under the Contract.

Insurance costs will not be paid for separately, but shall be considered incidental to each and every item of the Bid and the Contract.

#### 3.4 OWNER AND ENGINEER AS CO-INSURED

All insurance covering the Owner and the Engineer as described in this Section shall list the KRBYRBDC, Indiana with all authorized personnel and agents as Co-Insured. Policies, or riders to policies, listing the Owner and the Engineer as co-insured, shall be provided by the Contractor prior to the Notice to Proceed and shall remain in force for the duration of the Contract.

END OF SECTION

SECTION 00610  
OWNER'S INSTRUCTIONS  
FOR  
BID SECURITY, BONDS AND INSURANCE

The Owner in consultation with legal counsel and insurance advisors hereby instructs the Bidders and Contractors for this project of the following required bid security to be provided with the Bid and insurances to be provided and the Contract. Any insurance coverages can be arranged using a combination of primary, umbrella, buffer and excess policies, so that in total the following requirements are met.

1. SURETY

A. BID SECURITY

Required in the amount of five (5%) percent of the total bid.

B. PERFORMANCE BOND AND PAYMENT BOND

Performance Bond required in the amount of one hundred (100%) percent of the Contract Price

Payment Bond required in the amount of one hundred (100%) percent of the Contract Price.

2. INSURANCE

During the term of this Contract, Contractor shall maintain the following insurance coverage:

**A. Workers Compensation**

Contractor shall secure and maintain, with an insurance company having an A.M. Best Rating of A VII or better, such insurance as will protect it from claims as may arise in the performance of Contractor's services as identified in this Agreement under the Workers Compensation Statute for State of Indiana. Such coverage is to be equal to or greater than the following limits:

Part One            Statutory Coverage

Part Two            Employers Liability  
\$1,000,000 Each Accident  
\$1,000,000 Policy Limit for Disease  
\$1,000,000 Each Employee for Disease

A Waiver of Subrogation in favor of the KRB YRBDC is to be provided and attached to the Contractor's Workers Compensation policy.

## **B. General Liability**

Contractor shall secure and maintain, with an insurance company having an A.M. Best Rating of A VII or better, such insurance as will protect it from claims for bodily injury, death, or property damage as may arise in the performance of Contractor's services as identified in this Agreement. Such coverage is to be equal to or greater than the following limits:

\$1,000,000	General Aggregate
\$1,000,000	Products-Completed Operations Aggregate
\$1,000,000	Personal Injury and Advertising Injury
\$1,000,000	Each Occurrence
\$50,000	Damage to Premises Rented to You (Fire Legal)
\$10,000	Medical Payments

Contractor's General Liability coverage is to be Primary and non-contributory. A Waiver of Subrogation to the benefit of the KRB YRBDC is to be provided. The General Liability policy is to be endorsed to include the KRB YRBDC as an additional insured for On-Going and Completed Operations for a period of 2 years after completion of the job.

## **C. Commercial Automobile**

Contractor shall secure and maintain, with an insurance company having an A.M. Best Rating of A VII or better, such insurance as will protect it from claims for bodily injury, death, or property damage as may arise in the performance of Contractor's services as identified in this Agreement. Such coverage is to be equal to or greater than a Combined Single Limit of \$1,000,000. The Contractor's Commercial Automobile coverage is to be Primary and non-contributory.

Coverage for Hired and Non-Owned autos is to be included.

Coverage should apply to "Any Auto."

Contractor's Automobile coverage is to be Primary and non-contributory. A Waiver of Subrogation to the benefit of the KRBYRBDC is to be provided. The Automobile policy is to be endorsed to include the KRBYRBDC as an additional insured.

#### **D. Commercial Umbrella Liability**

Contractor shall secure and maintain, with an insurance company having an A.M. Best Rating of A VII or better, such insurance as will protect it from claims for bodily injury, death, or property damage as may arise in the performance of Contractor's services as identified in this Agreement. Such coverage is to be equal to or greater than the following limits:

\$4,000,000      Each Occurrence

The umbrella coverage should provide coverage in excess of the primary coverage and, at a minimum, should follow the form of the underlying insurance policies as outlined above. In addition, this coverage shall be Primary and non-contributory.

#### **E. General Insurance Conditions**

Contractor shall furnish evidence satisfactory to the Commission that insurance is in force that complies with insurance and indemnification specifications as contained herein. Such evidence shall be in the form of certificates of insurance to be on file prior to the commencement of work under this Agreement and prior to any payments for work performed under this Agreement. With respects to certificates, since they do not extend or alter coverage afforded by the policies, it is important and incumbent upon the Contractor or its insurance representative to ensure that the policies provide coverage for the specifications as expressed in the Agreement and that such policies are modified to do so if necessary.

All insurance required of Contractor pursuant to this Agreement shall be primary to any other insurance purchased by or to the benefit of City and all subsidiaries and affiliated companies.



Any insurance purchased by or to the benefit of the Commission and all subsidiaries and affiliated companies is secondary and non-contributory to the insurance required of Contactor as outlined in this Agreement. Providing the insurance described herein does not limit or relieve the Contractor's responsibility or liability under this Agreement.

Any failure to comply with reporting or other provisions of the policies including breaches of warranties, shall not affect coverage provided to the Commission, its officers and officials.

Each insurance policy required by this clause shall be endorsed to state that "It is agreed that these policies shall not be cancelled nor the coverage reduced until thirty (30) days after the KRBYRBDC has been notified in writing of such changes, reductions or cancellations." Said notice shall be made in the form of a certified letter.

END OF SECTION

## SECTION 00620 GUARANTEES

### PART 1 - GENERAL

#### 1.1 CONTRACTOR AND SURETY RESPONSIBILITY

Contractor and his Surety will be held responsible to the Owner that all items of equipment purchased and installed under this Contract fully meet the type, quality, design and the performance guarantees defined the Project Documents, and in actual operations satisfactorily perform the functions for which installed. Further, the Owner may withhold final payment until such performance and operation are demonstrated.

The Performance Bond shall remain in full force and effect through the guarantee period.

#### 1.2 GUARANTEE PERIOD

The Contractor guarantees that the Work and services to be performed under the Contract, and all workmanship, structures, materials and equipment performed, furnished, used or installed under the Contract, shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the Project Documents, that the strength of all parts of all manufactured equipment shall be adequate and specified and that the performance test requirements of the Contract shall be fulfilled. This guarantee shall be for a period of one year from and after the date of substantial completion, except as may be required by special guarantees or prescribed by law. If the Owner takes possession of or uses any completed or partially completed part of the Work, the guarantee for that part of the Work shall be for a period of one year from the date of substantial completion.

#### 1.3 NOTIFICATION BY OWNER

If at any time within the said period of guarantee, any part of the Work requires repair, correction, or replacement, the Owner may notify the Contractor in writing to make the required repair, correction, or replacement.

#### 1.4 CONTRACTOR'S RESPONSE

The Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the project resulting from such defects. If the Contractor neglects to commence making such repairs, corrections, or replacements to the satisfaction of the Owner within fourteen (14) days from the date of receipt of such notice, or having commenced, fails to prosecute such Work with diligence, the Owner may employ other persons to make the same, and all direct and indirect costs of making said repairs, corrections or replacements, including compensation for additional professional services, shall be paid by the Contractor.

## 1.5 SPECIAL GUARANTEES

Whenever in the Project Documents a guarantee is required to be furnished for any item of equipment, material or portion of the Work, such guarantee shall be submitted to the Engineer and a written approval will be issued to the Contractor before any such equipment, material or construction is ordered and incorporated in the Work by the Contractor.

END OF SECTION

## SECTION 00630 ALTERNATES

### PART 1 - GENERAL

#### 1.1 STANDARDS OF DESIGN

In order to establish standards of quality, the Engineer, in the Project Documents, may have referred to certain products by name, model, catalog number or similar fashion. Unless noted otherwise, whenever in any of the Project Documents an article, material or equipment is defined by a described proprietary product, or by using the name of a manufacturer or vendor, the term "or approved equal", if not inserted, shall be implied. This procedure is not to be construed as eliminating from competition other products of equal or better quality which are fully suitable in design. The specific article, material or equipment mentioned shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design, and efficiency. The Contractor shall comply with the requirements of the Project Documents relative to the Engineer's approval of materials and equipment before they are incorporated in the Project.

#### 1.2 PROCEDURE FOR PROPOSAL OF ALTERNATES

If the Contractor proposes to use materials other than those specified:

1. He shall furnish with Shop Drawings the engineering and catalog data for review as the Engineer may require.
2. He shall defer to the Engineer's judgment when proposed alternate materials or items of equipment are judged to be unacceptable and shall furnish the specified material or item of equipment in such case.

The attention of all Bidders is directed to the Condition that the Contractor and his Surety will be held responsible to the Owner that all items of equipment purchased and installed under this Contract fully meet the type, quality, design and the performance guarantees defined in the Project Documents, and in actual operations satisfactorily perform the functions for which installed. Further, that the Owner may withhold final payment until such performance and operation are demonstrated.

It is required that the successful Contractor purchase all items of equipment under adequate guarantees or bonds from the manufacturers or suppliers to protect the obligation of the Contractor to the Owner on items of equipment. It should be noted that the shop drawings and details will not be reviewed by the Engineer until a form of guarantee acceptable to the Owner is submitted to the Engineer by each manufacturer or supplier through the Contractor.

All proposals for alternates shall be submitted as Shop Drawings by the Contractor and not by individual trades or material suppliers.

1.3. GUARANTEE BOND IN LIEU OF EXPERIENCE

Wherever it is written that an equipment manufacturer must have a specified period of experience with his product, equipment which does not meet the specified experience period can be considered during shop drawing review if the equipment supplier or manufacturer is willing to provide a bond payable to the Owner for the specified time period which will guarantee replacement of the equipment, including all removal and installation cost, in the event of failure. The bond shall be in the amount of 150% of the installed cost as documented for the Engineer's approval. A signed and sealed letter from an approved bonding company stating its intent to provide the required bond shall be submitted along with the equipment engineering and application data.

END OF SECTION

SECTION 00700  
GENERAL CONDITIONS

PART 1 - GENERAL

1.1 DEFINITIONS

Wherever used in the Project Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof.

Addenda: Written and/or graphic instruments issued prior to bidding which clarify, modify or interpret the Project Documents.

Bid: The offer or proposal of the Bidder submitted on the prescribed forms setting forth the prices for the work to be performed.

Bidder: Any person, firm or corporation submitting a Bid for the Work.

Bonds: Bid, Performance, Labor and Material Bond, and other instruments of security, furnished by the Bidder or Contractor and his Surety in accordance with the Project Documents.

Change Order: A written order to the Contractor authorizing an addition, deletion or revision in the Work within the general scope of the Project Documents, or authorizing an adjustment in the Contract Price and/or Contract Time.

Contract Price: The total moneys payable to the Contractor under the terms and conditions of the Project Documents.

Contract Time: The number of calendar days stated in the Project Documents for the completion or substantial completion of the Work.

Contractor: The person, firm or corporation with whom the Owner has executed the Contract, and is referred to throughout the Project Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative.

Date of Award: Date of Award of Contract shall mean the date formal notice of such award, signed by the Owner, has been delivered to the intended awardee, or mailed to

him at the main business address shown in his Bid by the Owner or his authorized representative.

Day or Days: Unless herein otherwise expressly defined, shall mean calendar day or days. Calendar day is a 24-hour day shown on the calendar, beginning at midnight, including Saturdays, Sundays and holidays. Working day is a calendar day; exclusive of Saturdays, Sundays, or holidays; when weather or other conditions beyond the Contractor's control do not prevent completion of at least 7 hours of work on the principal unit of work underway between the hours of 7:00 am and 7:00 PM.

Engineer: The Commission Engineer for the KRB YRBDC or any other authorized personnel to act as such and designated to observe the work, acting directly or through duly authorized representatives. Wherever reference is made to "agents" of the Owner, the word "agents" shall be taken to include, among other agents, the Engineer or Engineers as herein defined.

Field Order: A written order effecting a change in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by the Owner or an Agent for the Owner, to the Contractor during construction.

Furnish: Furnish means supply and deliver to the Project Limits, ready for unloading, unpacking, assembly, installation, and similar operations.

Install: Install means the actual unloading, packing, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.

Modification: A Modification is (1) a written amendment to the Agreement signed by both parties, (2) a Change Order, (3) a written interpretation issued by the Engineer, or (4) a written order for a minor change in the Work, issued by the Engineer, which does not involve a change in the Contract sum or an extension of contract time. A Modification may be made only after execution of the Contract.

Notice of Award: The written notice of the acceptance of the Bid from the Owner to the successful Bidder.

Notice to Proceed: Written communication issued by the Owner to the Contractor authorizing him to proceed with the Work.

Owner: The KRB YRBDC referred to throughout the Project Documents as if singular in number and masculine in gender.

Plans: The part of the Project Documents which shows the characteristics and scope of the work to be performed and which have been prepared and approved by the Engineer.

Product Data: Illustrations, standards schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.

Project: The total construction described by the Project Documents of which the whole or a part may be constructed under the Contract.

Project Documents: The Project Manual and the Plans which completely describe the technical requirements of the Project including Bid, Contract, and construction procedures.

Project Manual: Comprised of the Invitation to Bid, Instructions to Bidders, Bid Forms including Bid, Bid Bond, Non-Collusion Affidavit, Notice of Award, Contract, Notice to Proceed, Performance Bond, Payment Bond, Guarantees, Insurance, General Conditions, Addenda, Specific Provisions, and Specifications.

Provide: Furnish and Install as required.

Resident Project Representative and Inspector: The authorized representative of the Owner who is assigned to the Project Limits or any part thereof and reports to the Engineer.

Samples: Physical examples which illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.

Shop Drawings: All drawings, diagrams, illustrations, brochures, schedules, and other data which are prepared by the Contractor, a Subcontractor, Manufacturer, supplier, or distributor, which illustrate how specific portions of the Work are proposed to be fabricated or installed.

Site: The lands and other places on, under, in, or through which the Work is to be executed or carried out and any other lands or places provided by the Owner for the purposes of the Contract together with such other places as may be specifically designated in the Project Documents as forming part of the site.

Specifications: A part of the Project Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

Subcontractor: An individual, firm or corporation having a direct contract with the Contractor for the performance of a part of the Work at the site. The term Subcontractor is referred to throughout the Project Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative.

Sub-subcontractor: An individual, firm or corporation having a direct or indirect contract with a Subcontractor for the performance of part of the Work at the site. The term Sub-



subcontractor is referred to throughout the Project Documents as if singular in number and masculine in gender and means a Sub-subcontractor or an authorized representative thereof.

Surety: The corporate bonding company that provides the Contractor's Bonds.

Date of Substantial Completion: That date as certified by the Owner when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the Project Documents, so that the Project or specified part can be utilized by the Owner for the purposes for which it is intended.

Suppliers: Any person, supplier or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site. A supplier is not a Subcontractor who purchases an item or equipment from a manufacturer.

Work: All labor necessary to produce the construction required by the Project Documents, and all materials and equipment incorporated or to be incorporated in such construction. Work is also used to mean the same as Project.

Written Notice: Any notice to any party of the Contract relative to any part of the Contract in writing and considered delivered and the service thereof completed when posted by certified or registered mail to the said part at his last given address or delivered in person to said party of his authorized representative on the site.

Form of Specification: Where "as shown," "as indicated," and "as detailed," or words of similar import are used, it shall be understood that reference to the Plans is made unless stated otherwise. Where "as directed," "as permitted," "approved," or words of similar import are used, it shall be understood that the direction, requirements, permission, approval, or acceptance of the Owner is intended unless stated otherwise.

## 1.2 PROJECT DOCUMENTS (PROJECT MANUAL AND PLANS)

- A. The intent of the Project Documents is that the Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the Work in accordance therewith and all incidental work necessary to complete the Project in an acceptable manner, ready for use, occupancy or operation by the Owner.
- B. By executing the Contract, the Contractor represents that he has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Project Documents.

- C. The Project Documents are complementary, and what is required by any one shall be as binding as if required by all. A complete and fully functional project is the intent of the Project Documents and all work shown, specified, or reasonably inferable from the Project Documents to produce a complete, functional project shall be included. Words and abbreviations which have well-known technical or trade meanings are used in accordance with such recognized meanings.
- D. The organization of the Project Manual into divisions, sections and articles, and the arrangement of Plans shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- E. Written interpretations necessary for the proper execution or progress of the Work, in the form of Plans or otherwise, will be issued with reasonable promptness by the Engineer and in accordance with any schedule agreed upon. Either party to the Contract may make written request to the Engineer for such interpretations. Such interpretations shall be consistent with and reasonably inferable from the Project Documents and may be effected by Field Order.
- F. The Contractor, by proceeding with any work, acknowledges that the Project Documents relating thereto are sufficient for their intended purpose, i.e., the complete construction of the Work, or portion of the Work, to which they may relate.
- G. If work is required in a manner to make it impossible to produce first class work, or should discrepancies appear among the Project Documents, or, if the Contractor has a question regarding the meaning of the Project Documents, the Contractor shall request the Engineer's interpretation and clarification before proceeding with work. If the Contractor fails to make such request, no excuse will thereafter be entertained for failure to carry out work in a satisfactory manner. Should conflict occur in or between Project Manual and Plans, the Contractor will be deemed to have estimated on, and agreed to provide, the greater quantity or better quality of materials and work.
- H. When a provision of the Project Manual conflicts with agreements or regulations in force among members of trade associations, unions, or councils which regulate or distinguish what work shall or shall not be included in the work of a particular trade, the Contractor shall make all necessary arrangements to reconcile such conflict without delay, damage, or cost to the Owner, and without recourse to the Engineer or the Owner. In case progress of the Work is affected by undue delay in furnishing or installing items or material or equipment required under the Contract because of a conflict involving such agreement or regulation, the Engineer may require that other material or equipment of equal kind and quality be provided at no additional cost to the Owner.
- I. In case of conflict between the Project Manual and Plans, the Plans shall govern. In case of conflict between the General Conditions, Specific Provisions, and

Specifications, the Specifications shall govern. Figure dimensions on Plans shall govern over scale dimensions, and detailed Plans will govern over general Plans.

### 1.3 ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

- A. The Contractor may be furnished additional instructions and plan details, by the Engineer, as necessary to carry out the Work required by the Project Documents. All additional instructions and detail drawings shall be issued to the Contractor by the Owner or the authorized agent of the Owner or the Engineer.
- B. The additional plans and instructions thus supplied will become a part of the Project Documents. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions.

### 1.4 LUMP SUM BREAKDOWN

- A. If requested by the Engineer, the Contractor shall submit, if applicable, a breakdown of a Lump Sum Bid as described in the section "Bid". The Contractor shall also submit such other information relating to the bid prices as may be required, and shall revise the bid breakdown as directed. Thereafter, the breakdown may be used to assist the Engineer in estimating the approximate value of the work performed, but shall not be binding upon the Owner or the Engineer for any purpose whatsoever. The bid breakdown must be approved before the first estimate becomes due.

### 1.5 RESPONSIBILITIES OF CONTRACTOR

- A. Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- B. The Contractor shall be responsible for all the Work under this Contract until completion and final acceptance thereof, except that the Contractor shall not be responsible for the damages or losses of any nature and from whatever cause that may occur to the Work that are caused by excepted risks; which are war hostilities, (whether declared or not), invasions, usurpation of the national power, civil wars, revolutions, insurrections, or commotions, disorders or tumults foreign to the persons who are under the control of the Contractor.
- C. The Contractor shall carefully study and compare the Project Documents and shall at once report to the Engineer any error, inconsistency or omission he may discover. Neither the Owner nor the Engineer shall be liable to the Contractor for any damage resulting from any such errors, inconsistencies or omissions in the Project Documents. The Contractor shall do no work without Plans, Specifications,

Modifications or, where required, approved Shop Drawings, Product Data, or Samples.

- D. The Contractor shall supervise and direct the Work. He shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall employ and maintain on the Work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The superintendent shall be satisfactory to the Owner and shall not be changed except with the consent of the Owner, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent shall have full authority to act on behalf of the Contractor and all communications given to the superintendent will be as binding as if given to the Contractor. Important communications will be confirmed in writing. Other communications will be so confirmed on written request in each case. The superintendent shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.
- E. The Contractor shall employ on the Work only such persons who are competent and skilled in their assignments. Any employee who obstructs the progress of the Work through incompetence or other means or conducts himself improperly shall be discharged or removed from the Work when so requested by the Owner.
- F. All equipment used on the Work shall be of such type, size and amount, and in such mechanical condition as to meet the requirements of the Work and produce a satisfactory quality of Work. The Contractor shall replace unsatisfactory equipment and furnish additional equipment when deemed necessary and as ordered by the Engineer.
- G. Storage buildings, temporary walls, etc. shall be designed and constructed to prevent blowing rain, sleet, snow, sand, dust, and debris from entering. The Contractor shall recondition equipment exposed to high humidity, rain, sleet, snow, sand, dust, and debris immediately after the exposure has occurred. Whenever equipment subject to damage from moisture is brought into a storage area after being exposed to extreme cold, moisture condensing on electrical insulation and on other parts which may be harmed by it shall be removed immediately.
- H. Electrical equipment having hygroscopic insulation, parts which can be damaged by absorption of moisture, or parts which can oxidize shall be stored in enclosed storage areas equipped with humidity control. Relative humidity shall be maintained at no more than 35%. Whenever possible, electrical equipment shall be stored in original shipping containers. All indoor type equipment shall be stored indoors, and humidity control equipment shall be used in all indoor erection areas unless the equipment is energized before moisture can be absorbed.
- I. Tools furnished with any equipment may be used for erection purposes when approved by the Engineer and shall be turned over to the Owner after completion of the erection

in a condition acceptable to the Engineer. In case of rejection by the Owner, the Contractor shall replace the tool or tools at no extra cost to the Owner. Tools shall be in a tool box marked for the equipment for which it is intended.

- J. The Contractor shall furnish and be responsible for all lighting required during the construction period, except that permanently installed fixtures may be used for this purpose.
- K. Upon completion and before final acceptance of the Work, the Contractor shall remove from the site of the Work and property of the Owner, all machinery, equipment, surplus, materials, rubbish, barricades, signs and temporary structures and shall leave the premises in a condition which is satisfactory to the Owner.
- L. The Contractor shall keep on the site one record set of the Project Documents annotated to show all Addenda and changes made during construction.
- M. The Contractor shall be responsible for the acts and omissions of all of his employees and all subcontractors, their agents and employees and all other persons performing any of the Work under a contract with the Contractor.
- N. The Contractor shall provide access and facilities for such access to the project work at all times for the Owner, Engineer and federal, state, and local agency representatives having a need to visit the Project Limits.
- O. The Project Documents contain the provisions required for the construction of the Project. Information obtained from any officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the Contractor to relieve him from fulfilling any of the conditions of the Contract.
- P. It is the intent of the Project Documents that all Work on the Project shall be completed on or before the stipulated contract completion dates. If applicable, each Contractor shall be required to schedule his work to permit the work of other contractors to be performed concurrently and within the contract completion time.
- Q. The Contractor or the plumbing subcontractor shall provide the Owner evidence that the Contractor is a licensed plumbing contractor under IC25-28.5-1.

## 1.6 CHANGES IN THE WORK

- A. The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Contract. If such changes increase or decrease the amount due under the Contract, or in the time required for performance of the Work, an equitable adjustment will be authorized by Change Order. The Contract Price and the Contract Time may be changed only by a Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including in the adjustment in the Contract Price or the Contract Time.
- B. The Engineer shall have authority to order minor changes in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time and not inconsistent with the intent of the Project Documents. Such changes may be effected by Field Order or by other written order. Such changes shall be binding on the Owner and the Contractor. The Contractor shall carry out such written orders promptly.
- C. It is agreed and understood that any changes made in the Project Documents, (whether such changes increase or decrease the amount thereof or the time required for its performance) or any changes in the manner of time of payments made by the Owner to the Contractor, or any other modifications of the Project Documents, shall in no way annul, release, diminish, or affect the liability of the Surety on the Contract Bonds given by the Contractor, it being the intent hereof that notwithstanding such changes the liability of the Surety on said bonds continues and remains in full force and effect.

## 1.7 TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- A. The date of beginning and the time for completion of the Work for each Contract are essential conditions of the Contract and the Work embraced shall be commenced on a date specified in the Notice to Proceed.
- B. The Contractor shall proceed with the Work at such rate of progress to insure full completion with the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner that the Contract Time for the completion of the Contracts described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the Work during the period such Work is to be performed.
- C. The date or time of completion stipulated in the Contract, is the Date of Substantial Completion, including authorized extensions thereto, unless otherwise provided.
- D. If the Contractor shall fail to complete his Work within the Contract Time, or extension of time granted by the Owner, then the Contractor shall pay to the Owner the amount of liquidated damages, and not as penalty, as specified in the Agreement

for each calendar day that the Contractor shall be in default after the times stipulated in the Project Documents.

- E. The Owner will charge the Contractor, and may deduct from partial and final payments for the Work, all engineering and inspection expenses incurred by the Owner in connection with any Work accomplished after the specified completion dates.
- F. The Contractor will not be charged with liquidated damages or any excess cost when the delay or delays of subcontractors in completion of the Work is due to the following, and the Contractor has promptly given Written Notice of such delay to the Owner.
  - 1. To any preference, priority, or allocation order duly issued by the Owner.
  - 2. To unforeseeable causes beyond the control and without the faulty or negligence of the Contractor, including but not restricted to: acts of God, acts of the public enemy, acts of the Owner, acts of another Contractor in the performance of Contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather.
- G. Except as otherwise specified, all work under the Contract shall be carried forward during regular working hours only, except as the Contractor elects of his own volition. Cost involved in overtime work shall be included in the Contract Price. Sufficient forces and hours of work shall be provided as may be necessary to ensure completion of the work under the conditions herein specified and within the times stated in the Contract. If the project falls behind schedule, the Contractor shall perform the Work by extra shifts or on an overtime basis as may be necessary to complete the Work on time, the cost of which shall be at the Contractor's expense. The Contractor will not be entitled to additional compensation for extra shifts or overtime work except as otherwise expressly stated in writing by the Owner.
- H. Should the Contractor be ordered by the Owner to work overtime for the purpose of completing the project Work ahead of schedule and for the Owner's behalf, the Owner will be required to pay only an amount equal to the portion of wages which is in excess of the regular rate paid by the Contractor by reason of such required overtime, and the liability insurance and social security tax paid in respect of such excess increment of wages. The Contractor shall make no charge for regular-rate wage payments, rental of equipment, use of tools and plant, overhead expense, and other costs and profit.

## 1.8 UNCOVERING WORK

- A. If any Work is covered contrary to the request of the Engineer or requirements specifically expressed in the Project Documents, that Work must, if required by the Engineer, be uncovered for his observation and/or testing and, if found lacking or

defective, replaced, at the Contractor's expense. All costs of the work associated with uncovering the Work shall be borne by the Contractor.

- B. If the Engineer considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at the Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the Work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such Work is defective, the Contractor shall bear all the expenses of such uncovering exposure, observation, inspection and testing and of satisfactory reconstruction. If however, such Work is not found to be defective, the Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate Change Order will be issued.

#### 1.9 CORRECTION OF WORK

- A. The Contractor shall promptly correct all work rejected by the Engineer as defective or as failing to conform to the Project Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all cost of correcting such rejected Work, including the cost of the Engineer's additional services thereby made necessary.
- B. If, within one year after the Date of Final Completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Project Documents, any of the Work is found to be defective or not in accordance with the Project Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. The Owner shall give such notice promptly after discovery of the condition. In the case of work performed by Subcontractors and where guarantees are required, the Contractor shall secure guarantees from said Subcontractors. Copies of all such guarantees shall be delivered to the Engineer upon completion of the work. Delivery of said guarantees shall not relieve the Contractor from obligations assumed under the provisions of the Contract.
- C. All such defective or non-conforming Work shall be removed from the site, if necessary and the Work shall be corrected to comply with the Project Documents without cost to the Owner.
- D. The Contractor shall bear the cost of making good all work of separate contractors destroyed or damaged by such removal or correction.
- E. If the Contractor does not remove such defective or nonconforming Work within a reasonable time fixed by written notice from the Engineer, the Owner may remove it



and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten days thereafter, the Owner may upon ten additional days written notice sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor including compensation for the Engineer's additional services made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

#### 1.10 ACCEPTANCE OF DEFECTIVE OR NONCONFORMING WORK

- A. If the Owner prefers to accept defective or nonconforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the Contract Price, or, if the amount is determined after final payment, it shall be paid by the Contractor.

#### 1.11 UNEXPECTED CONDITIONS

- A. The Contractor shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the Owner by Written Notice of:
  - 1. Physical, including subsurface, conditions at the site differing materially from those indicated in the Contract Documents; or
  - 2. Unknown physical conditions at the site, of unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work of the character provided for in the Project Documents.
- B. The Owner will promptly investigate the conditions and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the Work, an equitable adjustment will be made and the Contract will be modified by a Change Order.

#### 1.12 PROTESTS

- A. The Contractor shall proceed without delay to perform all work as directed, instructed, determined or decided by the Engineer and shall comply promptly with such directions, instructions, determinations or decisions. If the Contractor has any

objection thereto he may, within ten (10) days of having received any such direction, instruction, determination or decision, require that any such direction, instruction, determination or decision be put in writing and within ten (10) days after receipt of any such writing he may file a written protest with the Owner stating clearly and in detail his objections, the reasons therefore, and the nature and amount of additional compensation, if any, to which he claims he will be entitled thereby. A copy of such protest shall be filed with the Engineer at the same time it is filed with the Owner. Unless the Contractor requires that any such direction, instruction, determination or decision be put in writing within ten (10) days of having received such direction, instruction, determination or decision and unless the Contractor files such written protest with the Owner and Engineer within such ten (10) day period, he shall be deemed to have waived all grounds for protest of such direction, instruction, determination or decision and all claims for additional compensation or damages occasioned thereby, and shall further be deemed to have accepted such direction, instruction, determination, or decision as being fair, reasonable, and finally determinative of his obligations and rights under the contract.

#### 1.13 CLAIMS FOR DAMAGES

- A. If the Contractor makes claim for any damages alleged to have been sustained by breach of contract or otherwise, he shall, within ten (10) days after occurrence of the alleged breach or within ten (10) days after such damages are alleged to have been sustained, whichever date is the earlier, file with the Engineer a written, itemized statement in triplicate of the details of the alleged breach and the details and amount of the alleged damages. The Contractor agrees that unless such statement is made and filed as so required, his claim for damages shall be deemed waived, invalid and unenforceable, and that he shall not be entitled to any compensation for any such alleged damages. Within ten (10) days after the timely filing of such statement, the Engineer shall file with the Owner one copy of the statement, together with his recommendations for action by the Owner.
- B. The Contractor shall not be entitled to claim any additional compensation for damages by reason of any direction, instruction, determination or decision of the Engineer, nor shall any such claims be considered, unless the Contractor shall have complied in all respects with the subsection above this section titled "Protests" including, but not limited to the filing of a written protest in the manner and within the time therein provided.
- C. Any claim of the Contractor for adjustment hereunder will not be allowed unless he has given the required Written Notice; provided that the Owner may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

## 1.14 SUSPENSION OF WORK, TERMINATION AND DELAY

### A. Suspension for Convenience:

1. The Owner, for his convenience, may suspend the Contract in whole or in part at any time by written notice to the Contractor. Such notice shall state the extent and the effective date of such suspension, and on the effective date thereof Contractor shall promptly suspend such work to the extent specified, and during the period of such suspension shall properly care for and protect all work and materials, housing and equipment on hand for construction under the Contract. Contractor also shall promptly supply the Owner copies of all outstanding orders for materials, equipment and services, and shall take such action relative to such orders as may be directed by Owner. If the performance of the work is thus suspended, Contractor shall be entitled to be reimbursed for all additional expense incurred by reason of such suspension as agreed upon by Contractor and Owner.

### B. Termination for Convenience

1. The Owner may, for his convenience, terminate work under the Contract in whole or in part at any time by written notice to the Contractor. Such notice shall state the extent and effect date of such termination and on the effective date thereof the Contractor will, as and to the extent directed, stop work under the Contract and the placement of further orders or Subcontracts under the Contract, terminate work already under order and Subcontracts under the Contract, and take any necessary action to protect property in the Contractor's possession in which the Owner has or may acquire an interest.
2. In the event of such termination for convenience, the Owner shall pay the Contractor's (1) direct costs (excluding overhead) for all work done in conformity with the Contract to the effective date of such termination and (2) other costs pertaining to the Work which Contract may incur as a result of such termination, all as approved by Owner, plus 10% of such costs (excluding costs under (2) above) for overhead and profit, provided, however, that in no event shall the total amount of these payments plus payments previously made, exceed the lesser of (a) the total aggregate Contract Price specified in the Contract, (b) that portion of the work actually performed hereunder to the date of termination. Any such payment shall be made upon the expiration of the period within which liens may be filed under the laws of the state in which the Work is performed, subject, however, to withholding by the Owner for the reasons and in the manner provided in those provisions pertaining to withholding of payments.
3. If the Contractor is or becomes insolvent, or if he makes a general assignment for the benefit of his creditors, or if a receiver is appointed on account of his insolvency, or if he persistently, or repeatedly refuses or fails, except in case for which extension of time is provided, to supply enough properly skilled workmen

or proper material, or if he fails to make prompt payment to Subcontractors or for materials, or labor, or persistently disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a provision of the Project Documents, then the Owner, upon certification by the Engineer that sufficient cause exists to justify such action, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven days written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished.

4. In the event of such termination, the Owner shall immediately serve notice thereof upon the surety. The surety shall have the right to take over and perform the Contract. However, if the surety does not commence performance thereof within ten (10) days from date of the mailing to such surety of notice of termination, the Owner may, upon written notice to the surety, take over the Work and prosecute same to completion at expense of the Contract. If the unpaid balance of the Contract Price exceeds the costs of finishing the work, including compensation for the Engineer's additional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner. If the Contractor fails to provide said payment within 30 days, the Owner may make a claim of default on the surety for said payment and said surety shall be liable for said payment. The costs incurred by the Owner as herein provided shall be certified by the Engineer.

C. Delays and Extensions:

1. If the Contractor is delayed at any time in the progress of the Work by any act of neglect of the Owner or the Engineer, or by any employee of either, or by any separate contractor employed by the Owner, or changes ordered in the Work, or by labor disputes, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the Contractor's control, or by delay authorized by the Owner, or by any cause which the Engineer determines may justify the delay, then the Contract Time may be extended by Change Order for such reasonable time as the Engineer may determine.
2. All claims for extension of time shall be made in writing, with essential supporting data, to the Engineer no more than twenty days after the commencement of the delay; otherwise they shall be waived. In the case of a continuing cause of delay only one claim is necessary.
3. Engineer shall review the data so submitted and shall take into account such information as is within the knowledge of Engineers, and if approved by Owner, a written extension of time for completing the work shall be granted for the period

reasonably justified and not otherwise. The Contractor shall not be entitled to, and does hereby waive any and all damages which it may suffer by reason of the Owner hindering or delaying Contractor in the progress of the work or any portion thereof.

#### 1.15 SIMULTANEOUS WORK BY OTHERS

- A. The Owner reserves the right to perform, or have performed, in and about the work during the time when Contractor is performing his work hereunder such other work as Owner may desire and has made known to the Contractor prior to the execution of the Contract. Contractor shall make all reasonable effort to perform his work hereunder in such manner as will enable such other work to be performed without hindrance from Contractor and will make no claim for damage against Owner arising out of such other work or interference therefrom.

#### 1.16 SUBCONTRACTING

- A. The Contractor may utilize the services of specialty Subcontractors on those parts of the Work which, under normal contracting practices, are performed by specialty Subcontractors.
- B. The Contractor shall not contract with any Subcontractor or supplier without submitting the subcontractor's or supplier's name and such other information as may be requested to the Engineer for approval two weeks prior to such contracting. The Contractor will not be required to contract with any Subcontractor or person or organization against whom he has a reasonable objection.
- C. The Contractor shall not make any substitution for any Subcontractor or person or organization who has been accepted by the Owner and the Engineer, unless the substitution is acceptable to the Owner and the Engineer.
- D. The Contractor shall be fully responsible to the Owner for the acts and omission of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- E. Nothing contained in this Contract will create any contractual relation between any Subcontractor and the Owner.
- F. Subcontractual Relations.
  - 1. All work performed for the Contractor by a Subcontractor shall be pursuant to an appropriate agreement between the Contractor and the Subcontractor (and where appropriate between Subcontractors and Sub-subcontractors) which shall contain provisions that:

- (a) preserve and protect the rights of the Owner and the Engineer under the Contract with respect to the Work to be performed under the subcontract so that the subcontracting thereof will not prejudice such rights;
- (b) require that such Work be performed in accordance with the requirements of the Project Documents;
- (c) require submission to the Contractor of applications for payment under each subcontract to which the Contractor is a party, in reasonable time to enable the Contractor to apply for payment;
- (d) require that all claims for additional costs, extensions of time, damages for delays or otherwise with respect to subcontracted portions of the Work shall be submitted to the Contractor (via any Subcontractor or Sub-subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Project Documents for like claims by the Contractor upon the Owner.

#### 1.17 ENGINEER'S AUTHORITY

- A. Nothing contained in the Project Documents shall create any contractual relationship between the Engineer and the Contractor, except as the Engineer serves as the Engineer.
- B. The Engineer shall at all times have access to the work in progress. Upon request the Contractor shall provide such facilities as are required for safe and convenient access by the Engineer pursuant to his functions as described in the Project Documents.
- C. The Engineer will be the interpreter of the requirements of the Project Documents. The Engineer will, within a reasonable time, render such interpretations as necessary for the proper execution of the progress of the Work.
- D. All interpretations of the Engineer shall be consistent with the intent of and reasonably inferable from the Project Documents and will be in writing or in the form of drawings. All requests for interpretations shall be directed through the Owner. The Engineer shall not be liable to the Contractor for the result of any interpretation or decision rendered in good faith in such capacity.
- E. The Engineer's decisions in matters relating to artistic effect will be final if consistent with the intent of the Project Documents.
- F. The Engineer will have the authority to reject Work which does not conform to the Project Documents. Whenever, in his opinion, he considers it necessary or advisable for the proper implementation of the intent of the Project Documents, he will have authority to require special testing or inspection of the Work whether or not such

Work is then fabricated, installed or completed. However, neither the Engineer's authority to act, nor any decision made by him in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their agents or employees, or any other person performing any of the Work.

- G. The Engineer will prepare Change Orders and will have authority to order minor changes in the Work.
- H. Claims, disputes and other matters in question between the Contractor and the Owner relating to the execution or progress of the Work or the interpretation of the Project Documents shall be referred initially to the Engineer for decision which he will render in writing within a reasonable time.
- I. The Engineer, along with the Owner, will conduct inspections to determine the dates of Substantial Completion and Final Acceptance, and will receive and review written warranties and related documents required by the Contract and assembled by the Contractor.

#### 1.18 LAND AND RIGHTS-OF-WAY

- A. Prior to issuance of Notice to Proceed, the Owner will obtain all land, rights-of-way, easements and/or rights-of-entry necessary for carrying out and for completion of the Work to be performed pursuant to the Project Documents, unless otherwise mutually agreed.
- B. The Owner, if requested, will provide to the Contractor information which delineates and describes the land owned and rights-of-way acquired.
- C. The Contractor shall provide at his own expense and without liability to the Owner, with the approval of the Owner, any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

#### 1.19 USE OF SITE

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

#### 1.20 MISCELLANEOUS PROVISIONS

- A. If the Contractor fails to correct defective Work or persistently fails to supply materials or equipment in accordance with the Project Documents, the Owner may order the Contractor to stop the Work or any portion thereof, until the cause for such order has been eliminated.

- B. If the Contractor defaults or neglects to carry out the Work in accordance with the Project Documents or fails to perform any provision of the Contract, the Owner may, after seven days written notice to the Contractor and without prejudice to any other remedy he may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including the cost of the Engineer's additional services made necessary by such default, neglect or failure. The Engineer must approve both such action and the amount charged to the Contractor. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.
- C. In addition to the rights provided above, the Owner may exercise any other rights or remedies provided by law or in equity for any default or breach by the Contractor, and the Contractor shall be liable for and shall pay any losses or damages suffered by Owner arising out of any such breach or default by the Contractor in the performance of the Contract.
- D. The Contract is to be executed and performed in Indiana and shall be governed by the laws of the State of Indiana.

#### 1.21 COMMUNICATIONS

- A. The Contractor shall forward all communications to the Owner through the Engineer.
- B. The Contractor's business address and his office at or near the site of the Work are both hereby designated as places to which communications may be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the Contractor's business address in a post office box regularly maintained by the U. S. Postal Service or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall also be deemed sufficient service thereof upon the Contractor, and the date of such service shall be the date of receipt. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the Engineer. Service of any notice, letter, or other communication upon the Contractor personally shall likewise be deemed sufficient service.

#### 1.22 ARBITRATION

- A. All claims, disputes, and other matters in question arising out of, or relating to, the Project Documents or the breach thereof, except for claims which have been waived by the making and acceptance of final payment as provided for herein will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate will be specifically enforceable under the prevailing arbitration law. The award rendered by the



arbitrators will be final, and judgment may be entered upon it in any court having jurisdiction thereof.

- B. Notice of the demand for arbitration will be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy will be filed with the Owner and the Engineer. Demand for arbitration will in no event be made after institution of legal or equitable proceedings based on any claim, dispute or other matter in question which would be barred by the applicable statute of limitations.
- C. The Contractor shall carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed to in writing.

#### 1.23 POSSESSION OR USE PRIOR TO COMPLETION

- A. The Owner will have the right to take possession of or use any completed or partially completed part of the Work prior to final completion. Such possession or use shall not be deemed an acceptance of any Work not completed in accordance with the Project Documents. If such prior possession or use delays the progress of the Work or causes additional expenses to the Contractor, an equitable adjustment for the Contract Price and the time of completion will be made, and the Contract modified in writing accordingly.
- B. The Owner will have the right to operate all permanent equipment as soon and as long as it is in operating condition, whether or not such equipment has been accepted as complete and satisfactory, except that this shall not be construed to permit operation of any equipment which may be damaged by such operation before any required alterations or repairs have been made. All repairs or alterations required of the Contractor shall be made at such times as directed and in such a manner as will cause the minimum interruption in the use of the equipment by the Owner.

#### 1.24 COMPLIANCE WITH LAWS AND REGULATIONS

- A. The Contractor will be required to comply with all Federal, State and local laws, regulations, and codes which apply to the Work to be done and bidders shall ascertain before bidding on the Work as to what laws, regulations, and codes will affect his Work.
- B. In the construction of the Work under this Contract, the Contractor shall comply with all applicable provisions of Federal and State Labor and Safety Laws.
- C. The Contractor shall comply with all current requirements of the Federal Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).

- D. This Project is subject to the Safety and Health regulations of the U. S. Department of Labor set forth in 29 CFR Part 1926, and to the applicable regulations of the State of Indiana. Contractors shall be familiar with the requirements of these regulations.
- E. If the Contractor observes that the Project Documents are at variance with applicable laws, regulations, and/or codes, he shall promptly notify the Engineer and Owner in writing to permit necessary changes in the Work to be made. If the Contractor performs any Work knowing it to be contrary to such laws, regulations, and codes, and without such notice to the Engineer and Owner, he shall assume full responsibility therefore and shall bear all costs attributable thereto.
- F. The Contractor shall protect, indemnify and save harmless the Owner, his agents, servants and employees from and against any and all claims, demands, suits, proceedings, liabilities, judgments, penalties, losses, damages, costs and expenses, including attorneys fees, arising from or based on any violation or claimed violation of any ordinance rule regulation, order, decree or other requirement whether committed by the Contractor, or any of his agents, servants, employees or subcontractors.
- G. Caution shall be exercised by the Contractor at all times for the protection of persons and property.

Any and all safety regulations and other provisions of applicable Federal, State and local laws and building, construction and environmental codes shall be observed by the Contractor. The Contractor will be solely responsible for the adequacy and safety for all construction methods and safe prosecution of the work including trench protection, protective barricades and warning lights. In the event the Commission, its authorized representatives or the Consultant are held by a Court or administrative body to be liable for personal injuries or damages to persons or property arising from deficiencies in job-site safety, the Contractor shall promptly indemnify and hold them harmless therefrom as provided hereinafter.

To the fullest extent permitted by law, the Contractor shall be responsible for any injury to person or damage to property due to activities of the Contractor, its subcontractor(s) and their agents and employees with respect to the work or in connection therewith, and the Contractor shall indemnify and save harmless the Commission, its officers, employees and its consultants from any and all claims, suits, actions and costs, fees and expenses of every nature, arising from or connected with the Work, or on account of or in consequence of any act or omission in safeguarding the Work.

#### 1.25 BIDDER QUALIFICATIONS

- A. The Owner may make such investigations as it deems necessary to determine the ability of the bidder to perform the Work, and the Bidder shall furnish to the Owner, as requested, all such information and data for this purpose as the Owner may request.

Bidders must, as a minimum, present satisfactory evidence of being engaged in the business of construction of the type of work entailed by the Project Documents on which they submit Bids and of being fully qualified with the necessary capital, materials, and equipment to conduct and complete the Work. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is capable of carrying out the obligations of the Contract and to complete the Work contemplated therein.

END OF SECTION

SECTION 00800  
SPECIFIC PROVISIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK

The Work includes all labor, material and equipment to construct/install the  
**PHASE I – MARSHALL COUNTY CONSTRUCTION.**

1.2 CONTRACTOR'S ON-SITE WORKING HOURS

- A. The Contractor shall not start work prior to 7:00 A.M. local time and shall complete all operations at the construction site by 7:00 P.M. local time, unless otherwise specified on the Plans and specifications. No work on Sunday shall be permitted without approval from the nearest impacted landowner.
- B. The requirements specified in subparagraph A above shall be strictly adhered to unless the Contractor has prior approval of the Engineer to vary these working hours, or unless an emergency arises.

1.3 SITE SECURITY

- A. The Contractor shall be solely responsible for selecting the means for preventing unauthorized entry to the work site from the time work begins on the site until the work is 1) accepted by the Owner, and 2) the Contractor has removed his equipment, materials, tools, debris and similar items from the site. The Contractor shall fully inform himself of the existing uses of the construction sites and adjacent areas and accordingly shall assume full responsibility for appropriately protecting the public from all hazards associated with the work, including but not limited to stored materials, construction machinery, temporary buildings, temporary services, temporary utilities and excavations.

## 1.5 PERMITS

- A. The Owner has or will secure the permit(s) for the Work under this Project as detailed in Appendix A. The Contractor shall adhere to all conditions of these permits. The Contractor shall pay for and obtain all other federal, state or local permits (ie Rule 5) and/or registrations required prior to initiating construction of this Work.

END OF SECTION

SECTION 00900  
ADDENDA

PART 1 - GENERAL

1.1 ADDENDA AND INTERPRETATION OF PROJECT DOCUMENTS

- A. Addenda to the Project Documents may be issued prior to the opening of Bids to clarify or modify the Project Documents. If any prospective Bidder is in doubt as to the true meaning of any part of the Project Documents, he may submit a written request for clarification to the Engineer. The individual submitting the request shall be responsible for prompt delivery to the Engineer. To be given consideration, written requests must be received by the Engineer at least seven (7) days prior to the date fixed for the opening of Bids.
- B. Any clarification, modification, or interpretation of the Project documents will be made only by a written Addendum. The Owner and the Engineer will not be responsible for any other explanations or interpretations of the Project Documents. Each Addendum issued will be mailed or emailed to purchasers of record on file with the Owner to whom the Project Documents have been issued, not later than three (3) days prior to the date fixed for the opening of Bids. All Addenda issued become a part of the Project Documents. Failure of a bidder to receive such addenda shall not relieve the bidder from any obligation under his Bid as submitted.
- C. It is suggested that Bidders confirm the number of Addenda issued, not later than three (3) days prior to the date of the Bid Opening.

END OF SECTION

# DIVISION 1

## GENERAL REQUIREMENTS

SECTION 01040  
PROJECT COORDINATION

PART 1 - GENERAL

1.1 REQUIREMENTS

- A. In performing any and all work under this Contract, the Contractor shall coordinate his work with that of any adjacent Contractors and/or utilities for the Owner, and others, and cooperate with them in every reasonable way, to the end that there shall be the minimum practicable interference with operations.
- B. The Contractors shall perform his work in such a manner as will enable work by other contractors and/or utilities to be performed without hindrance and will make no claim for damage against the Owner arising out of such work or interference thereof.

1.2 MUTUAL RESPONSIBILITY OF CONTRACTORS

- A. The Contractor shall afford the Owner, and other contractors, reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall properly connect and coordinate his Work with theirs.
- B. If any part of the Contractor's Work depends, for proper execution or results, upon the work of the Owner or any other separate contractor, the Contractor shall, prior to proceeding with the Work, inspect and promptly report to the Engineer any apparent discrepancies or defects in such work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper to receive his work, except as to defects which may develop in the other separate contractor's work after the execution of the Contractor's work.
- C. Should the Contractor cause damage to the work or property of any separate contractor on the site, the Contractor shall, upon due notice, settle with such other contract by agreement or arbitration.

1.3 OWNER'S RIGHT TO CLEAN UP

- A. If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up, the Owner may clean up and charge the cost thereof to the several contractors as the Engineer shall determine to be just.

1.4 INTERFERENCE WITH EXISTING WORKS



A. The Contractor shall make such minor modifications in the work relating to existing structures as may be necessary, without additional compensation.

END OF SECTION

## SECTION 01050 FIELD ENGINEERING

### PART 1 - GENERAL

#### 1.1 CONSTRUCTION LAYOUT AND STAKING

The Work is to be constructed to the elevations and lines required by the Project Documents, except as may be modified by specific order of the Engineer. The Engineer may furnish basic survey control only; consisting of (1) bench mark with description and elevation, and a minimum of (1) horizontal survey control points. (See Specific Provisions) The Contractor will be responsible for providing all detailed construction staking and layout. The cost of such detailed construction staking and layout shall be incidental to the work items involved. The Contractor shall provide qualified and competent personnel to set the required elevations and lines. The Engineer/Owner to confirm construction layout and staking.

#### 1.2 PRESERVATION OF BENCH MARKS

The Contractor shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance. In the event of any destruction or disturbance of bench marks, reference points, and stakes, the Contractor shall promptly notify the Owner of any such destruction or disturbance. In the event that bench marks or reference points will be destroyed in the course of the Work, the Contractor shall first establish a new bench mark or reference point at a location suitable to the Owner before destroying said mark or point.

#### 1.3 VERIFICATION OF DIMENSIONS, LINES, AND GRADES

All dimensions and grades shown on the Plans are believed to be correct, but the Contractor shall verify them at the site and notify the Engineer of any discrepancies found before proceeding with the work; similarly as to final lines and grades established by official surveys, the Contractor shall check the Plans against such established lines and grades and notify the Engineer of any discrepancies found. In the absence of such notifications, extra work caused by discrepancies shall not entitle the Contractor to extra compensation.

#### 1.4 ASSIST ENGINEER

Contractor shall provide such ordinary labor as may be required to assist the Engineer in checking lines and grades, making measurements for payment purposes, and making any other necessary measurements.

END OF SECTION

SECTION 01060  
REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.1 STANDARDS AND CODES

- A. Contractor shall perform all Work, design and install all materials in accordance with the best present day installation and manufacturing practices.
- B. Contractor shall comply with all applicable laws, building and construction codes and requirements of governmental agencies under whose jurisdiction work is being performed. Fees for permits and licenses shall be paid by the Contractor.
- C. Contractor shall, unless specifically noted to the contrary, conform with and test in accordance with applicable sections of latest revisions of codes and standards designated in the specifications.
- D. For Conflicts:
  - 1. Between referenced codes and standards: codes or standards establishing more stringent requirements shall be followed.
  - 2. Between referenced codes and standards and specifications and/or plans: the one establishing more stringent requirements shall be followed.
- E. All Work included under this Contract shall be done in strict accordance with the Occupational Safety and Health Act of 1970 (Williams-Steiger Act) as amended and enforced by the governmental authority responsible for fulfilling this provision of the specifications. Responsibility shall rest solely with the Contractor, his superintendents and his foremen, and in no way shall rest with the Owner or Engineer.
- F. All manufactured equipment furnished for incorporation into this project shall conform to the requirements of the Occupational Safety and Health Act of 1970 (Williams-Steiger Act) as amended and enforced by the governmental authority responsible for the enforcement of the Act. Enforcement and responsibility for fulfilling this provision of the specifications shall rest solely with the equipment manufacturer and in no way shall rest with the Owner or Engineer.

END OF SECTION

SECTION 01151  
BASIS OF PAYMENT

PART 1 - GENERAL

1.1 ITEMIZED BID SCHEDULE

- A. The Basis of payment made under this Contract for Lump Sum Items shall be the percentage of the individual lump sum items completed.
- B. For Unit Price Items the basis for payment shall be made on the actual portion of the work completed.

END OF SECTION

## SECTION 01152

### APPLICATIONS FOR PAYMENT

#### PART 1 - GENERAL

##### 1.1 PROGRESS ESTIMATES

A. Once a month on a schedule agreed to by the Contractor and Engineer and consistent with regular meetings of the Owner, except as hereinafter provided, the Contractor shall make an estimate in writing of the total amount and value of the Work completed to date. This estimate shall be submitted to the Engineer for his review and recommendation of appropriate payment. The recommendation will be presented to the Owner within ten days of receipt of the estimate and all required documentation. The Owner will meet on a monthly basis to approve payment requests and upon approval will issue a check within 30 days after its approval of the Engineer's recommendation for payment. From the value of work done to date, the Owner shall deduct (1) retainage of five (5) percent of the amount claimed for work completed as part security for fulfillment of the Contract by the Contractor, (2) all previous payments made to the Contractor, (3) all sums chargeable against the Contractor, and (4) all other sums which may be retained under provisions of the Contract. The Owner shall pay monthly to the Contractor the balance not deducted and/or retained as aforesaid, except that payment in whole or in part may be withheld at any time if, in the judgment of the Engineer it is necessary to protect the Owner from loss because of:

1. Defective work not remedied;
2. Third party claims filed or reasonable evidence indicating probable filing of such claims;
3. Failure of the Contractor to make payment properly to Subcontractors or for labor, materials, or equipment;
4. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Sum;
5. Damage to the Owner or another contractor;
6. Reasonable indication that the Work will not be completed within the Contract Time; or
7. Unsatisfactory protection of the Work in accordance with the Project Documents by the Contractor.

B. If the Owner deems it expedient, he may allow estimates and payments to be made more frequently than once in each month. However, no progress estimate or payment need be made when, in the judgment of the Engineer, the total value of the work done since the last estimate amounts to less than one thousand dollars (\$1,000).

- C. The contractor warrants and guarantees that title to all Work, materials and equipment covered by an Application for Payment, whether incorporated in the Project or not, will pass to the Owner upon the receipt of such payments by the Contractor, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to as liens; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing the Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

### 1.3 SUBSTANTIAL COMPLETION AND FINAL PAYMENT

- A. When the Contractor determines that the Work, or a designated portion thereof which is acceptable to the Owner, is substantially complete, the Contractor shall prepare for submission to the Engineer a list of items yet to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Project Documents. When the Engineer, on the basis of an inspection determines that the Work is substantially complete, he shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and Contractor for maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. These shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them.
- B. Upon the receipt of written notice that the Work is ready for final inspection and acceptance, and upon receipt of a final Application for Payment, the Engineer will promptly make such inspection, and when he finds the Work acceptable under the Project Documents and the Contract fully performed, he will promptly approve the Application for Payment stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the work has been completed in accordance with the terms and conditions of the Project Documents and that the entire balance found to be due the Contractor is due and payable.
- C. Live cuttings included in the Toewood and Rootwad Composite installations which requires planting during the dormant season, will not be required for substantial completion but will be required for release of final 5% retainage.
- D. Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the Engineer (1) an Affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment and (3) other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Owner. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be

compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

- E. If after Substantial Completion of the Work, the final completion thereof is materially delayed through no fault of the Contractor, and the Engineer so confirms, the Owner shall, upon certification by the Engineer, and without termination of the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Contract, and if bonds have been furnished, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Engineer prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.
- F. The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:
  - 1. Unsettled liens;
  - 2. Faulty or defective work appearing after Substantial Completion;
  - 3. Failure of the Work to comply with the requirements of the Project Documents; or
  - 4. Terms of any special guarantees required by the Project Documents.

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

#### 1.4 WAIVERS OF LIEN

- A. The Contractor shall submit to the Engineer with each payment request the Contractor's partial waiver of lien for the full amount of the requested payment. Beginning with the second payment request, and with each succeeding payment request, the Contractor shall submit to the Engineer partial waivers of lien for each subcontractor and supplier showing that the amount paid to date to each is at least equivalent to the total value his work, less retainage, included on the previous payment request.
- B. The Contractor's request for final payment shall include the Contractor's final waiver of lien, which shall be for the full amount of his Contract including all Change Orders thereto, and final waivers of lien from all Subcontractors and suppliers for which final waivers of lien have not previously been submitted.
- C. The Contractor will include this provision in any contracts he enters and will require his Subcontractors and Suppliers to include this provision in any contracts they enter into.

- D. If at any time any notices of lien are filed for labor performed or materials or equipment manufactured, furnished, or delivered to or for the Work, the Contractor shall, at his own cost and expense, promptly discharge, remove or otherwise dispose of the same, and until such discharge, removal or disposition, the Owner shall have the right to retain from any moneys payable hereunder an amount which, in his sole judgment, he deems necessary to satisfy such liens and pay the costs and expenses, including attorney's fees, of defending any actions brought to enforce the same, or incurred in connection therewith or any reason thereof.



## 1.5 CLAIMS

- A. If at any time there be any evidence of any claims for which the Contractor is or may be liable or responsible hereunder, the Contractor shall promptly settle or otherwise dispose of the same, and until such claims are settled or disposed of, the Owner may retain from any moneys which would otherwise be payable hereunder so much therefore as, in his sole judgment, he may deem necessary to settle or otherwise dispose of such claims and to pay the costs and expenses, including attorneys' fees, of defending any actions brought to enforce such claims, or incurred in connection therewith or by reason thereof.

## 1.6 APPLICATION OF MONEYS RETAINED

- A. The Owner may apply any moneys retained hereunder to reimburse himself for any and all costs, expenses, losses, damage and damages, liabilities, suits, judgments and awards incurred, suffered or sustained by the Owner and chargeable to the Contractor hereunder or as determined hereunder.

SECTION 01153  
CHANGE ORDERS

PART 1 - GENERAL

1.1 CHANGES IN CONTRACT PRICE

- A. The Contract Price may be changed only by a Change Order.

1.2 CHANGE ORDERS

- A. For each Change Order the Contractor shall submit sufficient cost and pricing data as described in this subsection, to enable the Engineer to ascertain the reasonableness of costs proposed.
1. If directed by the Engineer, the Contractor shall promptly submit an offer to accomplish the desired change(s), in writing, on a lump sum or unit price basis as specified or as directed by the Engineer. The stated price shall be divided so as to show that it is the sum of: (1) the estimated cost for direct labor, material, and use of equipment; (2) indirect labor costs; (3) plus a maximum of 15% of the total of (1) and (2) for overhead and profit which includes the cost of surety bonds. The Contractor shall also submit in the offer the increased or decreased number of calendar days (if any) to accomplish the desired changes in addition to the contract completion time.
  2. Unless an agreed upon sum and/or unit price is obtained from above and is so stated in a Change Order, the Contractor shall accept as full payment for work or materials for which no price agreement is contained in the Contract an amount equal to the following: (1) the actual cost of direct labor, material, and use of equipment; (2) indirect labor costs; (3) plus 15% of the total of (1) and (2) for overhead and profit which includes the proportionate cost of surety bonds. Changes in contract completion time shall be adjusted as described above. The Contractor shall furnish itemized statements of these costs and give the Engineer access to all accounts, bills and vouchers; he shall not be entitled to payment for providing such information to the Engineer.
  3. For work performed by a Subcontractor, the Contractor shall accept as full payment therefore an amount equal to the actual cost to the Contractor of such work as determined by the Engineer plus a maximum of 5% of such cost.
  4. No cost shall be allowed for general superintendence and the use of small tools and manual equipment.

CHANGE ORDER

Contract Number \_\_\_\_\_

Change Order Number \_\_\_\_\_

Owner: \_\_\_\_\_ **KRBYRBDC**  
6100 Southport Road  
Portage, IN 46383

Project: **PHASE I – MARSHALL COUNTY CONSTRUCTION**

Contractor: \_\_\_\_\_  
\_\_\_\_\_

DESCRIPTION OF CHANGE:

REASON FOR CHANGE:

Increase to Contract Amount  
Due to Item No.      Change:      \$

Contract Number \_\_\_\_\_

Change Order Number \_\_\_\_\_

ORIGINAL CONTRACT PRICE \$ \_\_\_\_\_

CURRENT CONTRACT PRICE ADJUSTED BY  
PREVIOUS CHANGE ORDER(S) \$ \_\_\_\_\_

NET INCREASE/DECREASE IN CONTRACT  
PRICE THIS CHANGE ORDER \$ \_\_\_\_\_

TOTAL ADJUSTED CONTRACT PRICE  
INCLUDING THIS CHANGE ORDER \$ \_\_\_\_\_

This change order extends the time to complete the work by \_\_\_\_\_ calendar days, the revised time for completion is \_\_\_\_\_ days.

This change order prepared by: \_\_\_\_\_

\_\_\_\_\_  
(Engineer) (Date)

The undersigned agree to the terms of the change order.

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Contractor's Authorized Representative) Date

\_\_\_\_\_  
(Owner's Authorized Representative)

END OF SECTION

SECTION 01200  
PROJECT MEETINGS

PART 1- GENERAL

1.1 PRE-CONSTRUCTION CONFERENCE

- A. Unless agreed otherwise by Owner and Contractor, a pre-construction conference will be held at a mutually agreeable date and time but prior to the actual start of any Work.
- B. The Owner, Engineer, and Contractor shall attend the pre-construction conference at a location to be determined.

1.2 PROGRESS MEETINGS

- A. The Contractor and the Engineer shall jointly schedule regular periodic meetings to be attended by the Contractor, Engineer, and Owner or their authorized representatives. The progress meeting schedule shall be established at the pre-construction conference.

END OF SECTION

SECTION 01310  
CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. It is understood and agreed that time is of the essence in this contract, and the actual construction necessary for the work covered by this contract shall begin with all due diligence so as to complete the work to the extent specified within the time or times stated in the Agreement.
- B. When required by the Special Provisions, within seven calendar days after execution of the Agreement, Contractor shall submit to the Engineer one electronic copy of a detailed work schedule prepared on the Critical Path Method (CPM) equivalent. This schedule shall clearly indicate the operational procedure proposed to complete performance under the Contract within the specified time limit. The work schedule must be submitted prior to beginning actual work.
- C. Contractor shall prepare the work schedule to include the following information:
  - 1. All work components which will clearly depict and describe all essential activities including subcontractors and essential material suppliers.
  - 2. All significant activities, if any, including shop drawing preparation and review, related to performance that must be reviewed, approved, or executed by the Owner in conjunction with this contract. Such items shall be specially marked so as to be immediately identifiable.
  - 3. The time required for the completion of each of said activities.
  - 4. The sequence and interdependence of each of said activities.
  - 5. A project timetable which will translate each project day into an ordinary calendar day.
- D. Contractor shall maintain the CPM diagram, and on the first working day of every month submit an electronic copy of the updated diagram. It is essential that the Contractor maintain and process the CPM diagram throughout the life of this project. This schedule will be the basis for approval of change orders for time extensions. The monthly updated CPM diagram shall include the following additional information.

1. The progress to date for the various major items of work.
  2. A list of the equipment used on the work during the reporting period and any equipment idle during the reporting period.
  3. The total number of persons actually engaged on the work during the reporting period, with such total stated separately as to office, supervisory, and manual personnel by crafts.
  4. A manpower and equipment forecast for the succeeding thirty (30) calendar days, stating the total number of persons, and separately stating such total as to office, supervisory, and manual personnel by crafts.
- E. In the event the work falls behind schedule as established, except when a delay occurs due to unforeseeable causes beyond control and without fault as defined in the Project Documents, bring work into compliance with the schedule by extending normal working hours and/or working Saturdays and/or Sundays in accordance with the Project Documents and at no additional expense to the Owner. An option may be to revise the work schedule to reflect a plan which will accomplish the contract requirements within the specified time limit. Any such revised plan must be submitted to the Engineer for review and approval.
- F. Preparing and maintaining said CPM diagram is included as part of the Agreement contract price and will not be paid for separately.

END OF SECTION

SECTION 01340  
SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

- A. The Contractor shall review, stamp with his approval and submit, with reasonable promptness and in orderly sequence so as to cause no delay in the Work or in the work of any other contractor, one electronic copy of Shop or Setting Drawings, Product Data, and Samples for the Work. Shop Drawings, Product Data, and Samples shall be properly identified, including the specifications section and subsection, as specified, or as the Engineer may require. At the time of submission the Contractor shall inform the Engineer in writing of any deviation in the Shop Drawings, Product Data, and Samples from the requirements of the Project Documents.
  - 1. The Contractor and/or manufacturer making the shop drawing submittal shall include as the first section of the submittal a copy of the appropriate specification section or subsection, including all addenda, for which the submittal is being made.
- B. By approving and submitting Shop Drawings, Product Data, and Samples the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and the Project Documents.
- C. The Engineer will review and approve Shop Drawings, Product Data, and Samples with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the Project and with the information given in the Project Documents. The Engineer's approval of a separate item shall not indicate approval of an assembly in which the item functions.
- D. The Engineer's approval of Shop Drawings, Product Data, or Samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Project Documents unless the Contractor has informed the Engineer in writing of such deviation at the time of submission and the Engineer has given written approval to relieve the Contractor from responsibility for errors or omissions in the Shop Drawings, Product Data, or Samples. The approval of any Shop Drawing, Product Data, or Sample which substantially deviates from the requirements of the Project Documents will be evidenced by a change order.



- E. The Contractor shall also submit to the Engineer, Shop Drawings showing details of all materials and items necessary for proper installation of this work.
- F. The Contractor shall make any corrections required by the Engineer and shall resubmit the required number of corrected copies of Shop Drawings, Product Data, and Samples until approved. The Contractor shall direct specific attention in writing or on resubmitted Shop drawings, Product Data, and Samples to revisions other than the corrections requested by the Engineer on previous submissions.
- G. The Contractor shall have no claims for damages or extension of time on account of any delay in the Work resulting from the rejection of material or from review, revision, and re-submittal of drawings and other data for approval by the Engineer.
- H. Each Shop Drawing, Product Data, or Sample shall be dated and shall be identified with the name of the Project, the division, and the name of the Contractor.
- I. Portions of the Work requiring a Shop Drawing, Product Data or Sample submission shall not begin until the submission has been approved by the Engineer. A copy of each approved Shop Drawing, Project Data and Sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.
- J. Shop Drawings for manufactured products shall be certified in writing by the proposed manufacturer as to the accuracy of the information being submitted.
- K. All shop drawings shall be clear, legible originals or first generation copies.  
FACSIMILE COPIES WILL NOT BE ACCEPTED.

## PART 2 - EXECUTION

### 2.1 REPETITIVE REVIEW

- A. Cost of Subsequent Reviews: Shop Drawings and Operation and Maintenance Manuals submitted for each item will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at times convenient to the ENGINEER and at the Contractor's expense based on the Engineer's then prevailing rates including all direct and indirect costs and fees. Reimburse the Owner for all fees invoiced to the Owner by the Engineer.
- B. Time Extension: Any need for more than one resubmission, or any other delay in Engineer's review of submittals, will not entitle Contractor to extension of the Contract Time.

END OF SECTION

## SECTION 01545

### PROTECTION OF WORK AND PROPERTY

#### PART 1 - GENERAL

##### 1.1 PROTECTION OF WORK AND PROPERTY

- A. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions in, on or near the job site, including safety of all persons and property affected directly or indirectly by his operations during performance of the work. This requirement will apply continuously 24 hours a day until acceptance of the work by the Owner and shall not be limited to normal working hours.
- B. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. He shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the Work who may be affected thereby; all the Work and all the materials or equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his Subcontractors, or Sub-subcontractors; and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- C. Until such time as the Work is completed and accepted by the Owner, Contractor shall assume all liability for damage to, or loss or destruction of the Work or such materials, or equipment, and Contractor shall, at his expense, repair or replace to the Owner's satisfaction, all damage to, or loss or destruction of, the Work or such materials or equipment which results from any cause whatsoever.
- D. The Contractor shall at all times consult with and obtain the approval of the Owner or his representative for the storage of material, operation of equipment, placing of temporary structures or dispositions of any surplus or waste materials upon property of the Owner anywhere outside the limits of construction. Considerations of subsurface conditions should be made in selecting appropriate equipment to both access the site and complete all necessary work.
- E. Neither the materials excavated nor the materials or plans used in the construction of the Work shall be so placed as to prevent free access to all fire hydrants, valves, or manholes.
- F. The Contractor shall so conduct the Work that no equipment, material, or debris will be placed or allowed to fall upon private property outside of any easement in the

vicinity of the Work unless he shall have obtained the Owner's written consent thereto and shall have shown his written consent to the Engineer.

- G. The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.
- H. When the use of hazardous materials or equipment is necessary for the prosecution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.
- I. The Contractor shall designate, in writing, to the Owner and the Engineer, a responsible member of his organization at the site whose duty shall be the prevention of accidents.
- J. Earth Supporting Structures shall be provided as necessary to protect the Work and nearby property. Such Earth Supporting Structures shall be considered incidental to the Work and no additional payment made therefore.

## 1.2 PROTECTION OF GENERAL PUBLIC

- A. The Contractor shall at all times conduct and work in such a manner as to cause the least inconvenience and greatest protection to the general public. The Contractor shall furnish and maintain barricades, warning signs, red flags, lights, and temporary passageways as may be necessary to protect the Work and to safeguard the public. The cost of furnishing and maintaining the above facilities shall be incidental to the Contract and no extra compensation for it will be allowed.
- B. Throughout the performance of the Work or in connection with this Contract, the Contractor shall construct and adequately maintain suitable and safe crossings over trenches and such detours as are necessary to care for public and private traffic. The material excavated from trenches shall be compactly deposited along the sides of the trench or elsewhere in such a manner as shall give as little inconvenience as possible to the traveling public, to adjoining property owners, to the Contractors, or to the Owner.
- C. Provide barriers, fencing safety barricades and lights. Open trenches or other excavation shall be protected at all times.

## 1.3 EMERGENCIES

- A. In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization, from the Engineer or Owner, shall act to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided for Claims for Damages.

#### 1.4 APPLICABLE LAWS AND REGULATIONS

- A. The contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or their protection from damage, injury or loss. He shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection, including posting of danger signs and other warnings against hazards and promulgating safety regulations. He shall notify owners and users of adjacent utilities when prosecution of the Work may affect them. The Contractor shall remedy at his expense, all damage, injury, or loss to any property or person caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, or anyone for whose acts any of them may be liable, except damage or loss attributable the fault of the Project Documents or to the act or omissions of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.
- B. The Contractor shall observe all rules and regulations of the health department having jurisdiction and shall take precautions to avoid creating unsanitary conditions.
- C. Construction observation and/or resident construction inspection by the Owner or Engineer to ensure that the construction conforms to the Project Documents and such observation and/or inspection does not include review of the adequacy of the Contractor's safety measures in, on or near the construction site, nor shall the Owner and the Engineer be responsible in any manner for the safety of the Contractor's operations.

#### 1.5 BASIS OF PAYMENT

- A. Work performed under this section shall be considered as incidental to the Work and no additional payment shall be made.

END OF SECTION

SECTION 01560  
TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 DUST AND MUD CONTROL

- A. The Contractor shall control mud and dust conditions during phases of construction and restoration, and shall control such conditions in such a way that will not contaminate any river, creek, pond, lake, stream, or other body of water.
- B. It will be the Contractor's responsibility to determine the frequency and limit of such mud and dust control, subject to review and approval of the Engineer.
- C. Special efforts shall be made to minimize tracking of mud onto the adjacent streets. Contractor shall regularly clean any mud off the adjacent pavements.
- D. All control measures shall be in accordance with Federal, State, and local pollution regulations.

1.2 FIRE PROTECTION

- A. All work done by each Contractor on or about the premises shall be done in a careful manner with full consideration to fire protection, using fire-resistant materials where necessary for temporary enclosures.
- B. Portable fire extinguishers shall be provided by the Contractor, where and as required by the local Fire Department.
- C. Open fires on the site or in construction areas are prohibited. Each Contractor shall abide by safety directives regarding storage of flammable materials on the site.

1.3 RUBBISH CONTROL

- A. The Contractor shall remove all his rubbish as it occurs. No burning will be permitted on the Project Limits.

1.4 POLLUTION CONTROL

- A. The Contractor shall use energy efficient fuel for heating equipment. Strict compliance with ordinances regulating the production and emission of smoke must be observed.

- B. The Contractor shall eliminate noise to as great an extent as practicable at all times. Air compressing equipment shall be equipped with silencers and the exhausts of all power equipment shall be provided with mufflers. In the vicinity of hospitals and schools special care shall be used to avoid noise or other nuisance, and the Contractor shall strictly observe all local regulations and ordinances covering such locations.

1.5 BASIS OF PAYMENT

- A. Work performed under this section shall be considered as incidental to the Work and no additional payment shall be made.

END OF SECTION

SECTION 01570  
TRAFFIC REGULATION

PART 1 - GENERAL

1.1 TRAFFIC REGULATION

- A. The Contractor shall arrange his work so that traffic is obstructed as little as possible. The Work shall be done with the least possible inconvenience to the public.
- B. During the prosecution of the Work, the Contractor shall put up and maintain such barriers and lights as will effectually prevent accidents. As necessary, the Contractor shall provide suitable barricades, warning lights and warning signs at all places where the Work causes obstructions to the public. Such barriers and signs shall be in accordance with Part 6 of the "Manual on Uniform Traffic Control Devices for Streets and Highways, DOT (FHWA)", most current edition, or with other applicable city, county and state regulations.
- C. In accepting this Contract, the Contractor assumes full responsibility for sufficiency and safety of all such temporary Work or bridges and for any damage which may result from their failure or their improper construction, maintenance or operation and will indemnify and save harmless the Owner and the Engineer from all claims, suits, or actions and damages, or costs of every description arising by reason of failure to comply with the above provisions.
- D. The Contractor shall notify all affected police, fire, and emergency services at least 24 hours prior to occupying any roadway for construction purposes other than routine travel or transport and once per week for continued occupation of roadway. The Contractor shall coordinate each partial and total road closure no less than 48 hours in advance with all police, fire, and emergency services.
- E. The Contractor shall provide flagmen for traffic control as necessary, in accordance with city, county, and state regulation.

## 1.2 BASIS OF PAYMENT

- A. The work performed under this section shall be considered as incidental to the Work and no additional payment shall be made.

END OF SECTION



SECTION 01580  
CONSTRUCTION ENGINEERING

PART 1 - GENERAL

1.1 CONSTRUCTION ENGINEERING

- A. Construction Engineering shall include but not limited to re-establishing the survey control points, all layout construction staking including layout of all structures and boundaries.

Original survey was completed by the below firm:

Territorial Engineering LLC

7908 IN-23

Walkerton, IN 46574

(p) 574-586-3448

(e) [bob@te-llc.com](mailto:bob@te-llc.com)

- B. The Owner or Engineer may check all or any portion of the work, and the Contractor shall afford all necessary assistance to carrying out such checks. The Contractor shall immediately make any necessary corrections to the work.
- C. This information shall be used to verify that the planned alignment and elevations will match existing conditions. Required alignments and elevations will be shown on the Plans. Prior to incorporating established grades, the Contractor will be required to determine that all other planned elevations are in accordance with field conditions. All discrepancies shall be brought to the immediate attention of the Engineer. All changes in the design due to major discrepancies shall be brought to the attention of the Owner or Engineer. Field adjustments that do not affect the design shall be made by the Contractor and the Engineer shall be notified.
- D. Field notes shall be kept in field note books in a clear, orderly, and neat manner consistent with standard engineering practices, including titles, number, and indexes. Such notebooks shall adequately document all survey information.

1.5 BASIS OF PAYMENT

- A. Work performed under this section shall be considered as incidental to the Work and no additional payment shall be made.

END OF SECTION

## SECTION 01590

### AS-BUILT REPORTING

#### PART 1 - GENERAL

##### 1.1 AS-BUILT REPORTING

- A. As-built information shall be compiled and submitted by the Contractor for all deviations from the original construction drawings.

1. General Requirements:

- a. All deviations from the original construction drawings shall be shown on the applicable plan sheets in a color which highlights the change. Red color is preferred.
- b. The Plans should be continuously updated by hand markings during construction and available for inspection by the Owner or the Engineer.
- c. All as-built markups shall be compiled and added to one final computer-generated as-built drawing.
- d. The Owner reserves the right to retain some or all of the retainage until the as-built drawings are approved and all work covered under the 1 year warranty period are satisfied.

##### 1.5 BASIS OF PAYMENT

- A. Work performed under this section shall be considered as incidental to the Work and no additional payment shall be made.

END OF SECTION

SECTION 01710  
CLEANING UP

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. During its progress, the Work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
- B. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, or structures during work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and Work, etc., shall upon completion of the Work, be left in a clean and neat condition.
- C. On or before the completion of the Work, the Contractor shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools and machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings used by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.

1.2 BASIS OF PAYMENT

- A. Work performed under this section shall be considered as incidental to the Work and no additional payment shall be made.

END OF SECTION

DIVISION 2

TECHNICAL  
SPECIFICATIONS

## SECTION 02000

### MOBILIZATION AND DEMOBILIZATION

#### PART 1 – GENERAL

##### 1.1 SUMMARY

- A. This section includes requirements of a general nature related to the Contractor's mobilization and demobilization to and from the site in accordance with the Contract Documents.
- B. Prevailing Specifications: INDOT 2020 – Section 110
- C. Related Requirements
  - 1. Section 02030 – Erosion and Sedimentation Controls

##### 1.2 QUALITY ASSURANCE

- A. The Contractor shall notify the Owner and Engineer 7 days prior to each mobilization and 3 days prior to each demobilization.

#### PART 2 – PRODUCTS

##### 2.1 NONE REQUIRED

#### PART 3 – EXECUTION

##### 3.1 PROCEDURE

- A. Mobilization or demobilization shall not begin until the Owner/Engineer have been notified per Part 1.2 above and approval has been granted.

##### 3.2 BASIS OF MEASUREMENT AND PAYMENT

- A. Payment for all costs of providing Mobilization and Demobilization including all necessary equipment, material, and labor to accomplish the work shall be paid on a lump sum basis per the accepted Bid price.

END OF SECTION

SECTION 02020  
CLEARING, GRUBBING AND OBSTRUCTION REMOVAL

PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall consist of clearing, grubbing, removing, and repurposing/disposing of vegetation, including trees less than 10” Diameter at Breast Height (DBH) and debris within the project limits and/or staging/stockpile areas as required for designated grading, structure installation, seeding, planting and blanketing. All vegetation not required to be removed or cut for completion of this project shall remain. This work shall include the prevention of injury or defacement of all vegetation or other objects designated to remain.
- B. Prevailing Specifications: INDOT 2020 – Section 201
- C. Related Requirements: Section 02030 – Erosion and Sedimentation Controls

1.2 QUALITY ASSURANCE

- A. Trees greater than 3” Diameter at Breast Height (DBH) shall not be removed from March 31st to October 1st unless approved by the United States Fish and Wildlife Service (USFWS) or designated bat specialist. It is anticipated that non-bat trees (general trees) indicated on the tree removal plan will be able to be cut between these dates but potential bat roost trees will require a bat emergence survey which will be coordinated and paid for by the Owner. Contractor to coordinate with the Owner in advance of tree removal of potential bat trees so that surveys can be scheduled.
- B. Tree removal typically includes rootball, tree trunk and branches. All removed trees shall be salvaged on site and repurposed for Toewood or Rootwad Composite as outlined below.
- C. All vegetation and/or trees not repurposed shall be disposed of and chipped in high ground outside of the Floodway as first option and as approved by Owner. Logs to be cut to maximum 10’ lengths and tree tops to be chipped and spread on-site. If disposal in high grounds is not acceptable, then burning woody debris material on-site will be coordinated with the Owner as second option.

PART 2 – PRODUCTS

- 2.1 None

PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. The Contractor and Engineer/Owner shall review and confirm the limits of clearing prior to commencement to insure that no unnecessary trees are removed during Work.
- B. Request underground utilities to be located and marked within and surrounding construction areas.

### 3.3 PROCEDURES

- A. Locate, identify, and protect utilities from damage.
- B. Protect trees, plant growth, and features designated to remain.
- C. Protect bench marks, survey control points, and existing structures from damage or displacement.
- D. Clear trees, shrubs, undergrowth, fallen trees and debris within the Project Limits as needed for the successful completion of Work.
- E. Stockpile trees for later use during Toewood/Rootwad Composite.
- F. All vegetation and/or trees not repurposed shall be disposed of and chipped in high ground outside of the Floodway as first option and as approved by Owner. Logs to be cut to maximum 10' lengths and tree tops to be chipped and spread on-site. If disposal in high grounds is not acceptable, then burning woody debris material on-site will be coordinated with the Owner as second option.
- G. Protect Staging/Stockpile Area from excess erosion.

### 3.7 BASIS OF MEASUREMENT AND PAYMENT

- A. Payment for all costs of providing Clearing, Grubbing, and Obstruction Removal including all necessary equipment, material, and labor to accomplish the work shall be paid for on a lump sum basis.

END OF SECTION

SECTION 02030  
EROSION AND SEDIMENTATION CONTROLS

PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall include equipment, materials and labor related to the acquisition and compliance with the Indiana Rule 5 Storm Water Permit and installation of temporary erosion and sedimentation controls in accordance with the Storm Water Pollution Prevention Plan (SWPPP), Project Plans, and these Specifications.
- B. Prevailing Specifications: INDOT 2020 – Section 205
- C. Related Requirements
  - 1. Section 02040 – Control of Water
  - 2. Section 02120 – Permanent Seeding and Planting
  - 3. Section 02130 – Erosion Control Blanket

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

- A. The Contractor shall comply with 327 IAC 15-5 (Rule 5) Construction Site Run-off general permit by submitting the Notice of Intent (NOI) to IDEM. This NOI process requires a \$100.00 fee, notice of publication, and verification of a SWPPP plan review by the local SWCD office.
- B. The Contractor shall regularly monitor and maintain all erosion and sedimentation control measures as described in the Rule 5 related documents.

PART 2 – PRODUCTS

2.1 CONTROL OF WATER

- A. Reference Section 02040 – Control of Water. Contractor shall utilize an appropriate system during earthwork, toewood and rock placement below existing water line in order to maintain non-flowing water conditions within the portions of stream embankment being worked on during a given time period.

2.2 STAGING/STOCKPILE AREA



- A. All excavated material not immediately reused shall be placed within identified temporary stockpile areas or upland areas away from direct flow of water. The Contractor shall ensure that silt fence is properly installed between the stockpile area and the existing stream channel. Additional staging/stockpile areas may be utilized with approval of the Engineer and Owner.

### 2.3 SILT FENCE

- A. The Contractor shall utilize silt fence as required to prevent loose sediment from leaving overbank areas and entering the creek. Silt fence should not be placed in locations of concentrated flow.

### 2.4 OTHER PRODUCTS NEEDED FOR EROSION CONTROL

- A. The Contractor shall implement Best Management Practices (BMPs) and maintain installed practices to reduce erosion of soils and inhibit sediment from exiting site.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. The project Contract Documents and permits shall be available at the construction site in either a field office or the Contractor's vehicle for inspection by federal, state, and local officials as required by the permit for the duration of the Project.
- B. The Contractor shall maintain a record of any and all inspections of the site as required by the permit. Records shall include date and time of inspection, findings of inspections, corrective actions taken (including date and time), documentation of changes to the SWPPP made during construction, and date of all rainfall events (include total precipitation from nearest National Weather Service gauging station).

### 3.2 PROCEDURES

- A. Install erosion and sedimentation control measures specified in the approved SWPPP or as directed by Engineer prior to commencing activities related to clearing, grubbing or excavation.
- B. Clean and maintain erosion and sediment controls in accordance with the SWPPP.
- C. Do not permit sediment to erode into the river or off site.
- D. Limit the tracking of dirt on to public roadways. Contractor shall remove (by shovel and sweeping if necessary) any visible material tracked onto the road from the project site.

### 3.3 PROTECTION

- A. Protect and repair installed Erosion and Sedimentation Control Measures as necessary throughout the project.

### 3.4 BASIS OF MEASUREMNT AND PAYMENT

- A. No specific measurement will be made for acquiring the Indiana Rule 5 Storm Water Permit and assured compliance with SWPPP.
- B. Payment for all costs of providing Erosion and Sediment Control including all necessary equipment, material, and labor to accomplish the work shall be paid for on a lump sum basis.

END OF SECTION

SECTION 02040  
CONTROL OF WATER

PART 1: GENERAL

3.1 SUMMARY

- A. The Work included in this Section includes furnishing all labor, equipment, materials, and performing all operations necessary to control water during installation of structures below the water line as shown on the Plans. This work shall include the provision, operation and maintenance of pumps and/or diversion systems along with any temporary barriers, water plugs, or temporary piping necessary to allow the safe and proper construction of the Work.
- B. Related Requirements
  - 1. Section 02030 – Erosion and Sedimentation Controls
  - 2. Stormwater Pollution Prevention Plan (SWPPP) for the Work, to be developed by OWNER or ENGINEER prior to construction.

PART 2 – EXECUTION

1.1 SEQUENCING AND SCHEDULING

- A. Water control operations shall be coordinated with the Engineer.
- B. Contractor shall place erosion and sediment control measures before placing any barriers, berming or runoff diversion in accordance with Section the Erosion and Sedimentation Control of the Specifications.

2.2 PROCEDURES

- A. Contractor is required to manage the work during construction to account for fluctuations in water flow and water levels as necessary to protect the Work and Contractor's equipment, material, and personnel according to all applicable laws and regulations.
- B. Contractor shall be responsible for detailed development of sequencing and staging of construction, demolition, and control of water in the work area.
- C. Contractor must be aware that significant changes in flow and water level can occur in the project area at any given time. Contractor is responsible for any impacts that could result from changing water flow/level conditions.

- D. Water levels and flow volumes shall be controlled in the work area by pumping or by-passing to an extent that the permanent work being performed is not adversely affected.
- E. Contractor shall provide energy dissipation measures where pumped or by-passed water re-enters the river.
- F. Contractor shall include adequate costs in the Contract Price to assure that the water in the work areas can be controlled and the work completed.
- G. Contractor shall maintain all systems for controlling water for the period required to complete the Work.
- H. Contractor shall be solely responsible for means and methods, integrity of any cofferdams or dewatering methods, and maintaining integrity of the river.
- I. Contractor shall be responsible for re-grading, filling or otherwise removing temporary water control features upon completion of that portion of the water control Work. The areas shall be permanently restored as shown on the Drawings.

#### PART 3 – BASIS OF MEASUREMENT AND PAYMENT

- A. No measurement will be made for Control of Water.
- B. There will be no separate payment for Control of Water. All necessary equipment, material, and labor to accomplish the work for Control of Water shall be included in the accepted Bid price for Erosion and Sediment Control.

END OF SECTION

SECTION 02050  
TREE AND STUMP REMOVAL

PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall consist of removing trees 10” or greater DBH. This work shall include the prevention of injury or defacement of all vegetation or other objects designated to remain.
- B. Prevailing Specifications: INDOT 2020 – Section 201
- C. Related Requirements: Section 02030 – Erosion and Sedimentation Controls

1.2 QUALITY ASSURANCE

- A. Trees greater than 3” Diameter at Breast Height (DBH) shall not be removed from March 31st to October 1st unless approved by the United States Fish and Wildlife Service (USFWS) or designated bat specialist. It is anticipated that non-bat trees (general trees) indicated on the tree removal plan will be able to be cut between these dates but potential bat roost trees will require a bat emergence survey which will be coordinated and paid for by the Owner. Contractor to coordinate with the Owner in advance of tree removal of potential bat trees so that surveys can be scheduled.
- A. Tree removal typically includes rootball, tree trunk and branches. All removed trees shall be salvaged on site and repurposed for Toewood or Rootwad Composite as outlined below.
- B. Exceptions to typical rootball removal with the trunk may be made upon approval from Engineer should safety concerns arise during tree removal.
- C. All vegetation and/or trees not repurposed shall be disposed of and chipped in high ground outside of the Floodway as first option and as approved by Owner. Logs to be cut to maximum 10’ lengths and tree tops to be chipped and spread on-site. If disposal in high grounds is not acceptable, then burning woody debris material on-site will be coordinated with the Owner as second option.

PART 2 – PRODUCTS

- 2.1 None

PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. The Contractor and Owner shall review and confirm the tree removal plan prior to commencement to insure that no unnecessary trees are removed during Work.
- B. Request underground utilities to be located and marked within and surrounding construction areas.

### 3.3 PROCEDURES

- A. Locate, identify, and protect utilities from damage.
- B. Contractor to Locate and identify trees proposed for removal based on the tree removal plan. Contractor to indicate tree diameter category (10-17" or 18"+) for each tree identified. Engineer/Owner to review identified tree and confirm quantity.
- C. Protect trees, plant growth, and features designated to remain.
- D. Protect bench marks, survey control points, and existing structures from damage or displacement.
- E. Remove trees, typically with rootball and trunk intact, as marked and needed for the successful completion of Work.
- F. Stockpile trees for later use during Toewood/Rootwad Composite.
- G. All vegetation and/or trees not repurposed shall be disposed of and chipped in high ground outside of the Floodway as first option and as approved by Owner. Logs to be cut to maximum 10' lengths and tree tops to be chipped and spread on-site. If disposal in high grounds is not acceptable, then burning woody debris material on-site will be coordinated with the Owner as second option.

### 3.7 BASIS OF MEASUREMENT AND PAYMENT

- A. Prior to removal, the Contractor shall mark with flagging and note diameter class (10-17" or 18"+) of the trees proposed for removal. The Engineer will review marked trees, make adjustments as necessary, and record quantity of trees and respective DBH before Contractor removes.
- B. Payment for all costs of providing Tree and Stump Removal for trees 10" to 17" DBH including all necessary equipment, material, and labor to accomplish the work shall be paid for on a per unit basis.

- C. Payment for all costs of providing Tree and Stump Removal for trees 18" or greater DBH including all necessary equipment, material, and labor to accomplish the work shall be paid for on a per unit basis.

END OF SECTION

SECTION 02100  
EARTHWORK

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes furnishing all supervision, labor, materials, and equipment required to complete general or miscellaneous earthwork and site grading as shown on the Plans including, but not limited to:

1. Excavation of river bed (bed stone) materials and embankments for the installation of proposed rock and wood structures.
2. Excavation, loading, and transportation of soil within the site to achieve the specified grades and sections on the Plans.
3. Temporary soil stockpiling onsite as needed during construction.
4. Transportation and disposal of unused material in adjacent or upland areas including adjacent agricultural field.
5. Filling, grading, and compacting soil to the lines and grades shown on the Plans and/or as directed by the Engineer on river bed, floodplains, and embankments.

B. Prevailing Specifications: INDOT 2020 – Section 203

C. Related Requirements:

1. Section 02030 – Erosion and Sedimentation Controls
2. Section 02120 – Permanent Seeding and Planting

1.2 SUBMITTALS

A. None

1.3 QUALITY ASSURANCE

A. The Contractor shall verify that all design grades have been achieved per the Plans to a tolerance of 8 cm (3 inches).

PART 2 – PRODUCTS

2.1 COMMON EXCAVATION



- A. All earthen materials shall be considered common excavation. All excavation under this section will be considered unclassified regardless of the nature of material encountered.
- B. No additional compensation will be provided for handling, removal, and disposal of non-soil debris including concrete, concrete block, brick, stone, metal, plastic, wood material or other debris encountered during work. Stone, concrete and brick may be repurposed on site as underlayment where Stone is shown on the plans if it otherwise meets size requirements. Any metal or plastic debris encountered during excavation shall be removed from the site and disposed of properly in accordance with State and Federal laws and regulations.

## 2.2 BANK GRADING

- A. Bank grading, typical 2H:1V, shall be completed in areas identified by brown hatch on the plans. These areas are approximate but utilized to distinguish between typical bank grading versus inside floodplain grading.
- B. Bank grading typically starts from toe of proposed slope and continues to top of proposed bank.
- C. In general, only proposed contours at bankfull elevations and above are detailed on the plans. Additional, in channel grading is anticipated/required to develop typical riffles and pools as detailed on Sheet 11 of the plans and as indicated in the streambed profile detailed on Sheet 5 thru 10. In channel grading (below bankfull) is considered incidental to Earthwork and structure installation.
- D. Estimated CUT/FILL volumes as listed below:
  - a. Marshall County Bank Grading  
CUT: 5,050 CY; FILL: 5,050 CY
  - b. Marshall County Inside Floodplain Grading  
CUT: 650 CY; FILL: 400 CY
  - c. Starke County Bank Grading  
CUT: 4,855 CY; FILL: 3,655 CY
  - d. Starke County Inside Floodplain Grading  
CUT: 5,000 CY; FILL: 960 CY

## 2.2 INSIDE FLOODPLAIN GRADING

- A. Inside floodplain grading, typically 4H:1V but as much as 10H:1V or flatter, shall be completed in areas identified by cyan hatch on the plans. These areas are approximate but utilized to distinguish between typical bank grading versus inside floodplain grading.
- E. Inside floodplain areas typically are present on the inside of meander bends but not exclusively.

- F. In general, only proposed contours at bankfull elevations and above are detailed on the plans. Additionally, in channel grading is anticipated/required to develop typical riffles and pools as detailed on Sheet 11 of the plans and as indicated in the streambed profile detailed on Sheet 5 thru 10. In channel grading (below bankfull) is considered incidental to Earthwork and structure installation.

## PART 3 – EXECUTION

### 3.1 PROCEDURES

- A. All temporary erosion and sedimentation control measures shall be in place prior to the start of Work in this Section.
- B. Contractor shall complete all clearing, grubbing and obstruction removal operations in the area of immediate work per Section 02010 prior to earthwork operations.
- C. The Contractor shall perform grading and compacting of soils to the grades and lines shown on the Plans and as directed by the Engineer. All grading work shall be contained within the limits of disturbance. Final grades shall be as indicated on the Plans within a tolerance of +/- 0.25 feet (3 inches). Field conditions may dictate necessary adjustments to grading plans. In such cases, the Engineer shall indicate adjustments to the Contractor.
- D. Bank grading will primarily consist of the outside bank of meander bends and straightaway sections of the stream. Typical bank grading slope is 2H:1V or shown on the plans.
- E. Inside floodplain grading will typically consist of the inside floodplain areas of meander bends. Typical inside floodplain grading slopes range from 4H:1V to up to 10H:1V or flatter according to the plans.
- F. As soon as practical but not more than one week following grading activities, graded areas shall be seeded according to the Section 02120, Permanent Seeding and Planting. Contractor shall not be compensated for extra grading work directed by Engineer or Owner due to the erosion of embankments between final grading and seeding or seeding and erosion control work.
- G. All excavated material not immediately reused shall be placed within previously identified temporary stockpile areas. The Contractor shall ensure that silt fence is properly installed between the stockpile area and the existing stream channel.
- H. All soil material for site earthwork shall be obtained on site.
- I. The Owner and/or the Engineer may adjust the design grades based on field conditions at the time of construction to facilitate spreading of excess soil. No additional compensation will be made for these adjustments.

- J. All excess grading material not otherwise incorporated into site grading or structure installation, to be spread in adjacent upland areas and seeded with stabilization seed mix or annual oats if in adjacent agricultural fields as approved by the Owner/Engineer.

### 3.2 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Control.

### 3.3 PROTECTION

- A. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that may be created by earthwork operations.

### 3.4 BASIS OF MEASUREMENT AND PAYMENT

- A. Quantities listed on the bid sheet are to be considered estimates based on volume analysis completed in Civil3d comparing existing contour surface to proposed grading plan above bankfull elevation. Deviations less than 15% from the estimated quantities will not be eligible for additional payment.
- B. No additional payment will be made for in-channel grading (below bankfull limits) and this grading shall be considered incidental to this Section and structure installations.
- C. Payment for all costs of providing Bank Grading including all necessary equipment, material, and labor to accomplish the work shall be paid for on a per unit basis as identified on the Bid Sheet.
- D. Payment for all costs of providing Inside Floodplain Grading including all necessary equipment, material, and labor to accomplish the work shall be paid for on a per unit basis as identified on the Bid Sheet.

END OF SECTION

SECTION 02110  
STONE

PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall include equipment, materials and labor required for the acquisition, and installation of stone, including salvage of on-site materials, in accordance with these Specifications and the Plans.
- B. Prevailing Specifications: INDOT 2020 – Section 904
- C. Related Requirements
  - 1. Section 02030 – Erosion and Sedimentation Controls

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data:
  - 1. Product samples via photograph with measurement reference, shall be submitted to the Engineer in advance of the project. Source of rock should also be listed.
- C. Material tickets for all Stone installed on the site beyond that required by the Plans shall be supplied with Change Order payment requests.

1.3 QUALITY ASSURANCE

- A. The stone material shall be placed to the lines and grades as shown on the Plans.
- B. The Contractor shall verify that all design grades have been achieved per the Plans.

## 1.4 QUALIFICATIONS

- A. For Engineer's Cost Estimate, stone material was sourced from the below location.
  - i. US Aggregates  
14530 W 700 S, Francisville, IN 47964  
(p) 219-567-2587  
[jmasterson@usagg.com](mailto:jmasterson@usagg.com)
- B. For Engineer's Cost Estimate, trucking services were sourced from the below companies:
  - i. Loehmer Ag Products  
5477 County Road N 200 E, Monterey, IN 4690  
(p) 574-542-4019  
[loehmeragproducts@yahoo.com](mailto:loehmeragproducts@yahoo.com)
  - ii. Shoreline Aggregate Solutions  
301 West, US-20, Michigan City, IN 46360  
(p) 219-878-9991  
[mark@shorelineaggregate.com](mailto:mark@shorelineaggregate.com)
- C. All stone material types to be approved by Engineer prior to placement.
- D. Use equipment adequate in size, capacity and numbers to accomplish the work of this Section in a timely manner.
- E. Stone shall be placed at locations and minimum thickness shown on the Plans. It shall be placed to produce a surface of approximate regularity.

## PART 2 – PRODUCTS

### 2.1 INDOT REVETMENT RIPRAP

- A. INDOT Revetment Riprap (well graded material sized 3 inches to 12inches)

### 2.2 INDOT CLASS I RIPRAP

- A. INDOT Class I Riprap (well graded material sized 3 inches to 24 inches)

### 2.3 BOULDERS

- A. Boulders shall be Limestone Shot Rock or Native Rock sized with a minimum dimension of 30 inches in two of the three axis with one axis measuring approximately 36" when being utilized as a footer stone.

## PART 3 – EXECUTION

### 3.1 INSTALLATION

- A. Stone shall be installed in accordance with the Plans and these specifications.
- B. Additional stone installation may be directed by the Engineer, with any directives put in writing for documentation and opportunity for additional payment for extra material.

### 3.2 PROTECTION

- A. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that may be created by earthwork operations.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. No measurement of stone will be made for structures shown on the Plans, unless work directed by the Engineer (in writing) is beyond the scope of the Plans, then measurements of tonnage for INDOT Revetment Riprap, INDOT Class I Riprap, and Limestone Shot Rock shall be obtained by material delivery receipts. Payment for additional stone installation as directed by the Engineer in writing shall be made at the unit price per ton per accepted Bid price on each type.
- B. Payment for Stone including all costs to acquire stone and the necessary equipment and labor to accomplish the installation shall be included the lump sum Bid price for each structure installed.

END OF SECTION

SECTION 02120  
PERMANENT SEEDING AND PLANTING

PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall include equipment, materials and labor related to installation of Permanent Seeding and Plantings in accordance with these Specifications and in conformance with the Plans
- B. Prevailing Specifications: INDOT 2020 – Section 621 & 622
- C. Related Requirements
  - 1. Section 02030 – Erosion and Sedimentation Controls
  - 2. Section 02130 – Coir Matting, Erosion Control Blanket, Straw Blanket and Mulch

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data:
  - 1. Certification of seed mixes identifying source, including name and telephone number of supplier.
  - 2. Listing and source details of all plants.
  - 3. Product data for all products installed.
- C. Documentation of the seed mix and plantings shall be submitted to the Owner and Engineer for review and approval 10 or more days prior to proposed installation.
- D. Material tickets for all seeding and planting installed on the site shall be submitted with the payment request.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified contractor whose work has resulted in successful native grass and forb establishment.
- 1. Installer's Field Supervision: Require Installer to maintain an experienced fulltime supervisor on Project Site when seeding or planting is in progress.

1.4 SCHEDULING

- A. Planting Restrictions: Restrictions shall be in accordance with the provisions of INDOT 2020 – Section 621
- B. Weather Limitations: Proceed with seeding and planting only when existing and forecasted weather is appropriate for seeding and planting.

## PART 2 – PRODUCTS

### 2.1 TOPSOIL

B. contractor should repurpose topsoil whenever logistically feasible. Topsoil shall be clean of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.

### 2.2 PERMANENT SEEDING

A. Permanent Seeding shall consist of Stabilization Seed Mix placed in all graded embankments, graded floodplains, disturbed access lanes, and disturbed material storage areas. The seed mix shall be per the following table. Per Section 1.2 above all seed mixes for the project shall be submitted and approved by the Engineer and Owner. Substitutions to this list shall not be allowed unless approved by the Engineer. The seed mix shall be applied at a minimum weight of 826 ounces per acre (51.63 lbs/acre) or greater.

<b>Stabilization Seed Mix</b>		
<b>Botanic Name</b>	<b>Common Name</b>	<b>PLS oz/ac</b>
Avena sativa	Common Oat	640
Bromus latiglumis	Early-leaf Brome	1
Carex brevior	Plains Oval Sedge	1.5
Cinna arundinacea	Common Wood Reed	1
Elymus canadensis	Canada Wild Rye	80
Elymus virginicus	Virginia Wild Rye	80
Glyceria striata	Fowl Manna Grass	2
Leersia oryzoides	Rice Cut Grass	2.5
Monarda fistulosa	Wild Bergamot	1.5
Panicum virgatum	Switch Grass	8
Rudbeckia hirta	Black-Eyed Susan	3.5
Rudbeckia laciniata	Wild Golden Glow	1.5
Verbesina alternifolia	Wingstem	2.5
Verbena urticifolia	Hairy White Vervain	1
<b>826 oz/acre</b>		

### 2.3 TREES AND SHRUBS

A. Contractor shall acquire the species and size of shrubs or trees from the list below for planting in the Inside Floodplain Grading Areas and Bank



Grading Areas shown on the plans. All substitutions, additions, or deletions of plantings shall be approved by the Owner or Engineer prior to acquisition. The number and diversity of tree and shrub species planted shall be relatively consistent throughout the required planting zones so that no one species makes up more than 20% of the plantings in any of the defined planting areas.

B. Inside floodplain grading areas to be planted with bare root trees/shrubs at a rate of 300/acre at approximately 10 to 12 foot on center spacing.

C. Bank grading areas to be planted with single row of trees/shrubs 13 to 14 foot on center spacing and planted 3 to 5 feet beyond the top of graded bank.

D. Tree & Shrub lists.

Bank Grading Areas (Green Hatch)			
Trees & Shrubs			
Scientific Name	Common Name	TYPE	# trees
Acer saccharinum	sugar maple	Bareroot	50
Carya cordiformis	bitternut hickory		50
Celtis occidentalis	hackberry		75
Cercis canadensis	eastern redbud		75
Juglans nigra	black walnut		100
Plantanus occidentalis	american sycamore		100
Quercus macrocarpa	bur oak		50
Total Quantity for Bank Grading Areas -MARSHALL CTY			150
Total Quantity for Bank Grading Areas - STARKE CTY			350
Inside Floodplain Grading Areas (Violet Hatch)			
Trees & Shrubs			
Scientific Name	Common Name	TYPE	# per acre
Acer saccharinum	silver maple	Bareroot	35
Carya cordiformis	bitternut hickory		35
Celtis occidentalis	hackberry		35
Cercis canadensis	eastern redbud		35
Lindera benzoin	spicebush		35
Plantanus occidentalis	american sycamore		35
Quercus alba	white Oak		35
Staphylea trifolia	bladdernut		35
Tilia americana	basswood		35
Total per Acre			325
Total Quantity for Floodplain Grading Areas -MARSHALL CTY			110
Total Quantity for Floodplain Grading Areas - STARKE CTY			380

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. All seed shall be Pure Live Seed (PLS) at the amounts specified. A label shall be affixed to each seed lot specifying the PLS content. Seed amounts shall be adjusted to meet 100% PLS. Delivery of seed shall be timed to coordinate closely with the planting time. If the seed needs to be held for more than one day, the Contractor shall store the seed in a cool, dry place until the seed can be applied. Seed shall be shipped, stored and handled in a manner that will ensure protection from damage and to maintain dormancy until planted.
- B. The common oats within the Slope Stabilization Mix shall be guaranteed by the Contractor to germinate within two weeks of seeding during the growing season or in the first available growing season and produce a minimum of 75 percent surface coverage after two months. If the growth of the vegetation does not produce an aerial coverage of 80 percent during the first two months of growth than the Contractor shall be required to seed the areas lacking the required cover again until such time as the 80 percent coverage is obtained using the same seed mix specified herein. If there is a disagreement as to the existing aerial coverage a botanist from a reputable consulting firm, resource agency, or university shall determine the coverage based on standard botanical survey methods and their determination shall be final.
- C. All shrubs and trees shall be purchased from a reputable nursery in the state of Indiana, Illinois or Michigan. Species tags shall be affixed to each individual plant. Delivery of shrubs and trees shall be timed to coordinate closely with the planting time. The Contractor shall store the shrubs and trees in a shaded or air conditioned area and keep the potted soil or plant root mass moist until planted.
- D. Prior to the end of the 1 year project warranty period, the Commission will hire a third party inspector to conduct a monitoring exercise to determine the percent survival of the trees and shrubs planted. The Contractor is required to achieve 80% survival of all trees and shrubs at this 1 year time period. Should the Contractor not achieve 80% survival, the Contractor will be required to replant trees/shrubs equal to the amount of the original quantity of trees and shrubs minus those that have survived (effectively achieving 100% survival after the first year). The Contractor will not be awarded the final 5% retainage placed on the project until after this 1 year monitoring and any required replanting are completed.

### 3.2 INSTALLATION

- A. For areas seeded, soil shall be loose friable soil (salvaged from site) for a

- minimum of 1" over other soils. The soil surface shall be free of roots, rocks and other debris over 2" in diameter. The soil surface on the graded banks shall be uniform before seed application without depressions or protrusions exceeding 2".
- B. For all areas planted with shrubs and trees, soil shall be loose friable native soils salvaged from site for the required planting depth of 12-16 inches. Fertilizer is not required.
  - C. Moisten seeded and planted areas before planting if soil is dry. Water thoroughly and allow surface to dry before seeding/planting. Do not create muddy soil.
  - D. Seed can be applied directly to the soil surface and shall not be covered with more than ¼ inch of soil.
  - E. Seed prior to applying coir matting, erosion control blanket or mulch. The specified seed mixture shall be a uniform blend of the designated seeds, and shall be uniformly spread and sown by means of a hand operated mechanical spreader or hydroseeder. Seeding shall be done before the soil prepared for seeding becomes eroded, crusted over, or dried out. Any Seeding activity is subject to suspension or alteration by Engineer when soil conditions become excessively wet or dry or seed distribution is deemed inadequate. Contractor will be responsible for any notable damage to graded slopes caused by seeding activity and will be required to repair prior to continuing seeding activity.
  - F. Install matting/blanket in accordance with Section 02130 and the Manufacturer's recommendations after seeding has occurred. Shrubs and trees to be planted after Permanent Seeding and matting/blanket are applied.
  - G. All seeded surfaces not covered by matting/blanket or hydromulch shall be mulched with straw the same day seed is applied.
  - H. All areas disturbed to receive seeding. Areas beyond the limits of bank grading and inside floodplain grading that are otherwise disturbed as a result of access, staging, or spreading of spoils shall be seeded with Stabilization Seed Mix and straw mulched at a rate of approximately 2 tons per acre.

### 3.2 BASIS OF MEASUREMENT AND PAYMENT

- A. Payment for Permanent Seeding including the cost of all necessary equipment, materials, and labor to accomplish the work shall be paid for on a per acre basis as identified on the Bid Sheet. Areas of Bank Grading and Inside Floodplain Grading as indicated on the plans or otherwise requested by the Engineer in writing will be paid for under this item. All other permanent seeding as a result of other activities and land disturbance will be considered incidental to this work and completed at no additional cost to the Owner.
- B. Payment for Tree and Shrub Planting including the cost of all necessary equipment, materials, and labor to accomplish the work shall be paid for on a per unit basis as identified on the Bid Sheet. Note final 5% retainage will not be released until the percent survival requirements of trees/shrubs are satisfied as detailed in this Section.

END OF SECTION

SECTION 02130  
COIR MATTING, EROSION CONTROL BLANKET, STRAW BLANKET AND MULCH

PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall include equipment, materials and labor related to installation of Coir Matting, Erosion Control Blanket, Straw Blanket and Hydraulically Applied Mulch in accordance with these Specifications and in conformance with the Plans
- B. Prevailing Specifications: INDOT 2020 – Section 621
- C. Related Requirements
  - 1. Section 02030 - Erosion and Sedimentation Controls.
  - 2. Section 02120 - Permanent Seeding and Planting

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used. Along with a plan and schedule for the installation of the products.
- C. Material tickets for all coir matting, erosion control blanket, straw blanket and hydraulically applied mulch installed on the site shall be submitted with the payment request.

1.3 QUALITY ASSURANCE

- A. A manufacturer's representative that is knowledgeable in the placement of the matting/blanket and hydraulically applied mulch shall be onsite during the first day of placement.

PART 2 - PRODUCTS

2.1 COIR MATTING

- A. Coir Matting shall consist of 700 gram/m<sup>2</sup> woven coir such as Dekowe 700 or approved equal. Install per Manufacturer's recommendations.
- B. Hardwood Stakes measuring minimum 18 inches long by 3/4 inch by 3/4 inch shall be used to anchor Coir Matting in accordance with the plans.

2.1 EROSION CONTROL BLANKET

- A. Erosion Control Blanket shall consist of North American Green C125BN or approved equal. Install per Manufacturer's recommendations.
- B. Hardwood Stakes measuring minimum 18 inches long by 3/4 inch by 3/4 inch shall be used to anchor Erosion Control Blanket in accordance with the plans.

2.1 STRAW BLANKET

- A. Straw blanket shall consist of North American Green Single Bio Net Straw Blanket (S75BN or Equivalent).

- B. Hardwood Stakes measuring 6 inches in length with 1.25" head shall be used to anchor the straw blanket in accordance with the plans.

## 2.2 HYDRAULICALLY APPLIED MULCH

- A. Hydraulically Applied Mulch (Hydromulch) specified on the plans for installation above the erosion control blanket limits shall be a High Performance-Flexible Growth Medium (HP-FGM) applied at 3500 pounds per acre having the following components:
  - 1. 80% Thermally Processed Virgin Wood Fibers
  - 2. 10% Wetting agents (including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents)
  - 3. 5% Crimped Biodegradable Interlocking Fibers derived from regenerated plant sources
  - 4. 5% Micro-Pore Granules
  - 5. A product meeting the specification is Flexterra HP-FGM manufactured by Profile Products [www.profileproducts.com](http://www.profileproducts.com)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas to receive matting/blanket or hydromulch for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. The matting/blanket shall be installed at the locations, elevations and lengths as indicated on the Plans.
- B. Provide a smooth soil surface free from stones, clods, or debris that will prevent the contact of the matting with the soil.
- C. After seeding, 2 rolls (or minimum 10 feet wide surface coverage) coir matting underlaid with straw blanket shall be installed starting from the toe of slope with matting installed parallel to the stream channel.
- D. Begin installation at the upstream end of the matted area by anchoring the matting in a 12 inch deep trench as indicated on the Plans.
- E. Install matting in the direction of flow. Install matting loosely and in full contact with the soil such that there are no creases in the matting.
- F. Secure the upslope edge of the matting a minimum of 3 feet.

- G. The edges of the parallel matting must be staked with a minimum 6 inches of overlap such that the edge of the down-slope matting is under the one just up-slope utilizing minimum 18"x3/4"x3/4" hardwood stakes on 3 foot centers. When matting must be spliced along the slope, install matting end-over-end (shingle style) with a minimum of 6 inches of overlap having the upstream matting overlay the downstream matting. Three wood stakes shall be installed at each end joint.
- H. Wood stakes (Minimum 18"x3/4"x3/4") shall be installed around the entire perimeter on 3 foot centers.
- I. At the lower edge of the slope matting shall be secured by anchoring under toe of slope placed rock, or by burying, staking, backfilling, and compacting the bottom edge in an anchor trench a minimum of 12 inches deep by 12 inches wide. The same trench, stake, and backfill method shall be completed at the downstream limits of the application area.
- J. Interior sections of matting may be secured with a combination of 18" and 6" hardwood stakes with each on 6 foot centers to achieve an overall 3 foot on center triangular pattern.
- K. After minimum 2 rolls (or minimum 10 feet wide surface coverage) of coir matting underlaid with straw blanket are applied to bank grading areas, erosion control blanket may be installed to secure the remainder of the embankment.
- L. After minimum 2 rolls (or minimum 10 feet wide surface coverage) of coir matting underlaid with straw blanket are applied to inside floodplain grading areas, straw blanket may be installed to secure the remainder of the graded area.
- M. All installation specifications above will apply unless specified differently by the manufacturer and also approved by the Owner or Engineer.
- N. In areas of Bank Grading – Type 2 as indicated on the plans, after seeding, hydromulch shall be applied per the manufacture to graded banks above the 100 Year Base Flood Elevation to the limits of embankment grading.

#### 3.4 BASIS OF MEASUREMENT AND PAYMENT

- A. Payment for Coir Matting, Erosion Control Blanket and Straw Blanket including the cost of all necessary equipment, materials, and labor to accomplish the work shall be paid for on a per square yard basis as identified on the Bid Sheet.
- B. Payment for Hydraulically Applied Mulch including the cost of all necessary equipment, materials, and labor to accomplish the work shall be paid for on a per acre basis as identified on the Bid Sheet.

END OF SECTION

SECTION 02300  
BOULDER GLIDE STRUCTURE

PART 1 – GENERAL

1.1 SUMMARY

- A. The work for this section includes providing labor, equipment and materials to install Boulder Glide Structure as shown on the Plans and specified herein. The Boulder Glide Structure stabilizes the water surface elevation in the pool immediately upstream and sets the elevation of the downstream riffle.
- B. Related Requirements
  - 1. Section 02100 – Earthwork
  - 1. Section 02110 – Stone
  - 2. Section 02030 – Erosion and Sedimentation Control

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

- A. Use adequately sized and appropriate equipment and skilled operator(s) who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified methods needed for proper installation of the work.
- B. Engineer to be present during initial Boulder Glide Structure installations and approve each structure installed as completed.

PART 2 – PRODUCTS

- 2.1 INDOT REVETMENT RIPRAP (3 inches to 12 inches in diameter”) shall be used as part of a mixture only as a necessary substitute for river bed stone.
- 2.2 BOULDERS (Limestone shot rock or native rock sized a minimum of 30-inch dimension for two of the three axis). Shall be used for footer and surface stones.

PART 3 – EXECUTION

3.1 GENERAL

- A. Placement shall conform to the angles, slopes and dimensions indicated on the Plans and as directed by the Engineer.

### 3.2 EXECUTION

- A. Flow from the stream shall be temporarily diverted away from portions of the work area as the work progresses across the stream.
- B. Excavate into the stream bank to the limits/extents shown on the Plans and to a minimum depth equal to that of the footer stone diameter.
- C. Install footer stones into the trench in a continuous line from the limits/extents shown on the Plans into the channel on an angle moving approximately 20 feet upstream to a point approximately 1/5 of the channel width and then continue perpendicular to the bank for approximately 60 feet or 3/5 of the channel width before angling back downstream to form an arm about 30 feet in length extending beyond inner berm feet as shown on the Plan for the final 1/5 channel width.
- A. Footer stones shall contact adjacent footer stones within the upper 1/10 of the footer stone's height and attempt to maximize contact between stones. Footer stone elevation at the contact points between footer stones shall determine if structure meets elevations identified in the Plans. The lowest elevation shall be in the center of the channel and shall match the elevation shown in the Plan structure tables. Top of footer stones shall with successive stones form a relatively uniform surface having the lowest elevation in the center of the channel matching elevations shown on the Plan structure tables. No more than 1' of rise is allowable for the footer stone bottom elevation between the channel center to the bankfull limit. Footer stones to extend minimum 36" below proposed bed surface across the entire bankfull width.
- D. Install surface stone on upstream side of footer stone course in the gap between two or more footer stones. Each surface stone shall contact at least two footer stones. Surface stones shall protrude above the substrate and footer stones 0-0.3' with successive stones forming a relatively uniform surface having the lowest elevation in the center of the channel and increasing in elevation toward each embankment until the surface stones reach ½ the bankfull elevation as shown on the Plan. No less than 2' of vertical overlap between the footer stone and surface stone will be allowable meaning that multiple surface stones may be required to reach the ½ bankfull elevation. Surface stones shall have gaps between them that are a maximum of 10 inches.
- A. Existing on-site bedstone shall be placed on the upstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 5' upstream of the surface stones. The individual placement of larger pieces may be required to fill larger voids so that the



pieces will not migrate through the voids. Fill voids to the top elevation of the surface stones.

- B. Place additional bed stone upstream of the footer and surface stones to further reduce, and preferably eliminate, any void space between footer stones, surface stones, and to reduce angle of upstream face of structure.
- C. On-site bedstone or substitute INDOT revetment riprap shall be placed on the downstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 10' downstream of the footer stones. Downstream constructed riffle can replace this 10' downstream requirement. The individual placement of larger pieces may be required to fill larger voids or to provide additional strength to the structure and prevent migration of bedstone. Fill voids to the top elevation of the surface stones.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. Boulder Glide Structure (Existing Bedstone) will be paid at a unit price per each installed, all complete, as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the boulder glide structure for the duration of the Work, all complete as specified.
- B. Boulder Glide Structure (Imported Bedstone) will be paid at a unit price per each installed, all complete, as specified. This structure implies that insufficient quantities of bedstone were available at the location of the structure or adjacent areas and that imported bedstone was utilized for all or at least a 75% portion of the structure. Should insufficient on-site bedstone (as agreed upon by the Engineer) result in the Contractor importing between 0 and 25% of the overall bedstone quantity required for any structure, the imported Miscellaneous INDOT Revetment Riprap would be paid for at the unit price listed in the bid sheet. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the boulder glide structure for the duration of the Work, all complete as specified

END OF SECTION

SECTION 02310  
CONSTRUCTED RIFFLE WITH BOULDER CLUSTERS

PART 1 – GENERAL

1.1 SUMMARY

- A. The work for this section includes providing labor, equipment and materials to install Constructed Riffles with Boulder Clusters as shown on the Plans and specified herein. The purpose of these structures is to help stabilize existing riffle cross sections and profiles.
- B. Related Requirements
  - 1. Section 02030 – Erosion and Sedimentation Control
  - 2. Section 02100 – Earthwork
  - 3. Section 02110– Stone
  - 4. Section 02300 – Boulder Glide Structure

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

- A. Use skilled operator(s) who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Engineer to be present during Constructed Riffle installations. Engineer to approve each Structure installed as completed.

PART 2 – PRODUCTS

- 2.1 INDOT REVETMENT RIPRAP (well graded material sized 3 inches to 12 inches) shall be used as part of a mixture only as a necessary substitute for river bed gravel (bed stone).
- 2.2 BOULDERS (Limestone shot rock or native rock sized a minimum of 30-inches in dimension for two of the three axis. Shall be used for footer and surface stones.

PART 3 – EXECUTION

### 3.1 GENERAL

- A. Placement shall conform to the slopes and dimensions indicated on the Plans and as directed by the Engineer.

### 3.2 PROCEDURES

- A. The Constructed Riffle (riffle) is primarily a redistribution of existing river bed stone to form a rock ramp that has a consistent slope and shape across the channel.
- B. The upstream and downstream ends of the riffle shall be constructed perpendicular to the channel banks and the cross section profile should resemble a broad U shape.
- C. The slope of the riffle shall be constructed to the grade shown on the profile drawing elevations within the Plan set.
- D. Riffles shall include Boulder Clusters installed on 40 feet (center-to-center) spacing throughout the length and width of the riffle (one Boulder Cluster for every 1600 square feet of riffle to nearest whole number).
- E. If bed stone volume at the location of the constructed riffle or excavated from adjacent structure locations is not adequate to support the design elevations then supplemental stone will be required using a mixture that is 75% revetment riprap and 25% on-site gravels/fines. Miscellaneous INDOT Revetment Riprap would be paid for at the unit price listed in the bid sheet
- F. Boulder Clusters shall be three (3) boulders each. Three footer stones shall be installed with the top elevation at or slightly (maximum 0.3 feet) above the bed elevation. Footer stones shall be abutting.
- G. Footer stones shall have voids chinked using bed stone.
- H. Approximately every 20 feet downstream from the start of each riffle section, a log sill shall be installed on both sides of the embankment.
- I. A log sill shall consist of a log at least 24 inches in diameter and a length long enough to extend into the channel and extend past the bankfull limit at least 5 feet.
- J. Top of log sill elevation shall be at or slightly below (less than 0.2 feet) adjacent stream bed elevation and not exceed 0.5 bankfull depth elevation per Plan.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. Measurement of riffle length will be made and applied to the type bedstone material (existing bedstone or imported bedstone) utilized for construction of the riffle.
- B. Constructed Riffle with Boulder Clusters (Existing Bedstone) will be paid at a unit price per linear foot installed, all complete, as specified. This unit price shall be payment in for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the riffle for the duration of the Work, all complete as specified
- C. Constructed Riffle with Boulder Clusters (Imported Bedstone) will be paid at a unit price per linear foot installed, all complete, as specified. This structure implies that insufficient quantities of bedstone were available at the location of the structure or adjacent areas and that imported bedstone was utilized for all or atleast a 75% portion of the structure. Should insufficient on-site bedstone (as agreed upon by the Engineer) result in the Contractor importing between 0 and 25% of the overall bedstone quantity required for any structure, the imported Miscellaneous INDOT Revetment Riprap would be paid for at the unit price listed in the bid sheet. This unit price shall be payment in for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the riffle for the duration of the Work, all complete as specified

END OF SECTION

SECTION 02320  
CROSS VANE

PART 1 – GENERAL

1.1 SUMMARY

- A. The work for this section includes providing labor, equipment and materials to install Cross Vane structures as shown on the Plans and specified herein.
- B. Related Requirements
  - 1. Section 02100 – Earthwork
  - 2. Section 02110 – Stone
  - 3. Section 02030 – Erosion and Sedimentation Control

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

- C. Use adequately sized and appropriate equipment and skilled operator(s) who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified methods needed for proper installation of the work.
- D. Engineer to be present during Cross Vane installations. Engineer to approve each Structure installed as completed.

PART 2 – PRODUCTS

- 2.1 INDOT REVETMENT RIPRAP (well graded material sized 3 inches to 12 inches) shall be used as part of a mixture only as a necessary substitute for river bed gravel (bed stone).
- 2.2 BOULDERS (Limestone shot rock or native rock sized a minimum of 30-inch dimension for two of the three axis). Shall be used for footer and surface stones

PART 3 – EXECUTION

3.1 GENERAL

- A. Placement shall conform to the angles, slopes and dimensions indicated on the Plans and as directed by the Engineer.

### 3.2 PROCEDURE

- D. Flow from the stream should be temporarily diverted away from small portions of the work area as the work progresses across the stream.
- E. Excavate into the stream bank to the limits/extents shown on the plans and to a minimum depth equal to that of the footer stone diameter.
- F. Install footer stones into the trench in a continuous line from the limits shown on the Plans into the channel on a 25 to 30 degree angle moving approximately 45-50 feet upstream to a point approximately 1/4 of the channel width and then continue perpendicular to the bank for approximately 1/2 of the channel width before angling back downstream to form an arm about 45-50 feet as shown on the Plan for the final 1/4 channel width.
- B. Top of footer stone shall match or protrude slightly above proposed bed grade. Footer stones shall abut one another with contact with adjacent footer stones within the top 1/10 of footer stone height and have as much surface contact as possible. Any gaps (voids) shall be filled with bed stone. Top of footer stones shall with successive stones form a relatively uniform surface having the lowest elevation in the center of the channel matching elevations shown on the Plan structure tables. No more than 1' of rise is allowable for the footer stone bottom elevation between the channel center to the bankfull limit. Footer stones to extend minimum 36" below proposed bed surface across the entire bankfull width.
- G. Install surface stone on upstream face/side of and resting against two or more footer stone. The surface stones in the center of the river shall protrude approximately 0 to 0.3 feet above the substrate with successive stones forming a relatively uniform slope from the center line to the bankfull elevation on both stream banks. No less than 2' of vertical overlap between the footer stone and surface stone will be allowable meaning that multiple surface stones may be required to reach the 1/2 bankfull elevation. Surface stones shall have gaps between them that are a maximum of 10 inches.
- H. Existing on-site bedstone shall be placed on the upstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 5' upstream of the surface stones. The individual placement of larger pieces may be required to fill larger voids so that the pieces will not migrate through the voids. Fill voids to the top elevation of the surface stones.
- I. Place additional bed stone upstream of the footer and surface stones to further reduce, and preferably eliminate, any void space between footer stones, surface stones, and to reduce angle of upstream face of structure.

- J. On-site bedstone or substitute INDOT revetment riprap shall be placed on the downstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 5' downstream of the footer stones. The individual placement of larger pieces may be required to fill larger voids or to provide additional strength to the structure and prevent migration of bedstone. Fill voids to the top elevation of the surface stones.
- K. River bed stone, if used, shall be excavated from the center of the channel downstream of the Cross Vane structure to form a pool as shown in the Plan details. The excavated pool shall be no deeper than ½ the depth of installed footer stones.

### 3.5 BASIS OF MEASUREMENT AND PAYMENT

- A. Measurements of angles, slope, elevations, and length of Cross Vane will be made for compliance with the Plans.
- B. Cross Vanes (Existing Bedstone) will be paid at a unit price per each installed, all complete, as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the structure for the duration of the Work, all complete as specified
- C. Cross Vane (Imported Bedstone) will be paid at a unit price per linear foot installed, all complete, as specified. This structure implies that insufficient quantities of bedstone were available at the location of the structure or adjacent areas and that imported bedstone was utilized for all or atleast a 75% portion of the structure. Should insufficient on-site bedstone (as agreed upon by the Engineer) result in the Contractor importing between 0 and 25% of the overall bedstone quantity required for any structure, the imported Miscellaneous INDOT Revetment Riprap would be paid for at the unit price listed in the bid sheet. This unit price shall be payment in for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the riffle for the duration of the Work, all complete as specified

END OF SECTION

SECTION 02330  
J-HOOK

PART 1 – GENERAL

1.1 SUMMARY

- A. The work for this section includes providing labor, equipment and materials to install J-Hook structures as shown on the Plans and specified herein.
- B. Related Requirements
  - 1. Section 02100 – Earthwork
  - 2. Section 02110 – Stone
  - 3. Section 02030 – Erosion and Sedimentation Control

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

- A. Use adequately sized and appropriate equipment and skilled operator(s) who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified methods needed for proper installation of the work.
- B. Engineer to be present during J-Hook installations. Engineer to approve each Structure installed as completed.

PART 2 – PRODUCTS

- 2.1 BOULDERS (Limestone shot rock or native rock sized a minimum of 30-36 inch dimension for two of the three axis). Shall be used for footer and surface stones

PART 3 – EXECUTION

3.1 GENERAL

- A. Placement shall conform to the slopes and dimensions indicated on the Plans and as directed by the Engineer.

3.2 PROCEDURES



- A. Flow from the stream shall be temporarily diverted away from portions of the work area as the work progresses across the stream.
- B. Excavate into the stream bank to the limits/extents shown on the plans and to a minimum depth equal to that of the footer stone diameter.
- C. Install footer stones into the trench in a continuous line from the limits shown on the Plans into the channel on a 25 to 30 degree angle of departure, moving upstream to a point approximately 1/3 of the channel width, and then begin an arch that gradually angles back toward the opposite embankment as shown on the Plans. Top of footer stones shall match or protrude slightly above proposed bed surface. Top of footer stones shall with successive stones form a relatively uniform surface having the lowest elevation in the center of the channel matching elevations shown on the Plan structure tables. No more than 1' of rise is allowable for the footer stone bottom elevation between the channel center to the bankfull limit. Footer stones to extend minimum 36" below proposed bed surface across the entire bankfull width.
- D. Install surface stone on upstream side of and resting against the footer stones across the entire channel. The surface stones shall protrude above the substrate and footer stones to the elevations shown on the Plan structure tables with the top of successive stones forming a relatively uniform elevation from the lowest point in the center of the channel to the bankfull elevation on the stream bank at the structure origin. No less than 2' of vertical overlap between the footer stone and surface stone will be allowable meaning that multiple surface stones may be required to reach the bankfull elevation. Surface stones shall have gaps between them that are a maximum of 10 inches. The elevation of the structure on the opposite bank (usually the inside of a bend) shall be ½ bankfull as shown on the plans.
- E. More than one layer of surface stones may be necessary to reach the required elevations near the stream bank. Where this occurs, multiple layers of surface stones will be required and the final product may look more like a mound.
- F. Existing on-site bedstone shall be placed on the upstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 5' upstream of the surface stones and/or connect the structure with the upstream constructed riffle. Backfill vane arm with on-site bedstone. The individual placement of larger pieces may be required to fill larger voids so that the pieces will not migrate through the voids. Fill voids to the top elevation of the surface stones.
- G. On-site bedstone shall be placed on the downstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 10' downstream of the footer stones to make a smooth transition to the downstream pool. The individual placement of larger pieces may be required to fill larger voids or to provide additional strength to the

structure and prevent migration of bedstone. Fill voids to the top elevation of the surface stones.

- H. River bed stone shall be excavated from the center of the channel downstream of the arch in the J-Hook structure to form a pool as shown in the Plan details. The excavated pool shall be no deeper than  $\frac{1}{2}$  the depth of installed footer stone.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. There will be no measurement of stone used to construct each J-Hook. Measurements of angles, slope, elevations, and length of J-hook will be made for compliance with the Plans.
- B. J-Hook structures will be paid at a unit price per each installed, all complete, as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the structure for the duration of the Work, all complete as specified

END OF SECTION

SECTION 02340  
ROCK VANE

PART 1 – GENERAL

1.4 SUMMARY

A. The work for this section includes providing labor, equipment and materials to install Rock Vane structures as shown on the Plans and specified herein. Rock Vanes are detailed on Sheet 22 as part of the J-Hook detail.

B. Related Requirements

1. Section 02100 – Earthwork
2. Section 02110 – Stone
3. Section 02030 – Erosion and Sedimentation Control

1.5 SUBMITTALS

A. Section 01340 – Shop Drawings, Product Data, and Samples.

B. Product Data: Submit data on products used.

1.6 QUALITY ASSURANCE

A. Use adequately sized and appropriate equipment and skilled operator(s) who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified methods needed for proper installation of the work.

B. Engineer to be present during Rock Vane installations. Engineer to approve each Structure installed as completed.

PART 2 – PRODUCTS

- 2.1 BOULDERS (Limestone shot rock or native rock sized a minimum of 30-inch dimension for two of the three axis). Shall be used for footer and surface stones

PART 3 – EXECUTION

3.1 GENERAL

B. Placement shall conform to the slopes and dimensions indicated on the Plans and as directed by the Engineer.

3.2 PROCEDURES

- I. Flow from the stream shall be temporarily diverted away from portions of the work area as the work progresses across the stream.
- J. Excavate into the stream bank to the limits/extents shown on the plans and to a minimum depth equal to that of the footer stone diameter.
- K. Install footer stones into the trench in a continuous line from the limits shown on the Plans into the channel on a 20 to 30 degree angle of departure, moving upstream to a point approximately 1/3 of the channel width. Top of footer stones shall match or protrude slightly above existing substrate grade. Top of footer stones shall with successive stones form a relatively uniform surface having the lowest elevation in the center of the channel matching elevations shown on the Plan structure tables. No more than 1' of rise is allowable for the footer stone bottom elevation between the channel center to the bankfull limit. Footer stones to extend minimum 36" below proposed bed surface across the entire bankfull width.
- L. Install surface stone on upstream side of and resting against the footer stones across the entire channel. The surface stones shall protrude above the substrate and footer stones to the elevations shown on the Plan structure tables with the top of successive stones forming a relatively uniform elevation from the lowest point in the channel to the bankfull elevation on the stream bank at the structure origin.
- M. More than one layer of surface stones may be necessary to reach the required elevations near the stream bank. Where this occurs, multiple layers of surface stones will be required and the final product may look more like a mound.
- N. Existing on-site bedstone shall be placed on the upstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 5' upstream of the surface stones. The individual placement of larger pieces may be required to fill larger voids so that the pieces will not migrate through the voids. Fill voids to the top elevation of the surface stones.
- O. Place additional bed stone upstream of the footer and surface stones to further reduce, and preferably eliminate, any void space between footer stones, surface stones, and to reduce angle of upstream face of structure. Backfill vane arm with on-site bedstone.
- P. On-site bedstone shall be placed on the downstream side of the footer and surface stones within the trench and channel to fill the voids between boulders. This bedstone should extend for a minimum 10' downstream of the footer stones to make a smooth transition to the downstream pool. The individual placement of larger pieces may be required to fill larger voids or to provide additional strength to the

structure and prevent migration of bedstone. Fill voids to the top elevation of the surface stones.

- Q. River bed stone, if used, shall be excavated from the center of the channel downstream of the Rock Vane structure to form a pool as shown in the Plan details. The excavated pool shall be no deeper than  $\frac{1}{2}$  the depth of installed footer stone.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. There will be no measurement of stone used to construct each Rock Vane. Measurements of angles, slope, elevations, and length of Rock Vane will be made for compliance with the Plans.
- B. Rock Vane structures will be paid at a unit price per each installed, all complete, as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the structure for the duration of the Work, all complete as specified

END OF SECTION

SECTION 02360  
TOEWOOD WITH SOIL LIFT

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes providing all materials, equipment, and labor necessary for installation of Toewood with Soil Lift – Type A and Type B both structures being paid under the same pay item in the bid sheet.

B. Related Requirements

1. Section 02010 – Clearing, Grubbing, and Obstruction Removal
2. Section 02100 – Earthwork
3. Section 02110 – Stone
4. Section 02120 – Permanent Seeding and Planting
5. Section 02130 – Coir Matting, Erosion Control Blanket, Straw Blanket and Mulch
6. Section 02030 – Erosion and Sediment Control

1.2 SUBMITTALS

A. Section 01340 – Shop Drawings, Product Data, and Samples.

B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen and operators who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Engineer to be present during the installation of Toewood with Soil Lift - Type A installation. Engineer to approve of materials prior to construction and installed work following construction.

PART 2 – PRODUCTS

2.1 FOOTER LOGS AND ROOTWADS

A. Footer logs shall be greater than 10 inches in diameter with a minimum trunk length of 10 feet. Logs shall be harvested from within the approved work limits and be free from any visible decay or rotting.

- B. Rootwads shall have a root ball or fan greater than 3 feet in diameter. The length of the trunk extending from the root wad shall be at least 8 feet and the diameter of the trunk shall be at least 10 inches.

## 2.2 BRUSH LAYER

- A. Brush consisting of shrubs, smaller branches, and treetops shall be harvested from within the approved Project Limits.

## 2.3 LIVE CUTTINGS

- A. Cuttings shall have a minimum stem diameter of 1/2 inch and be a minimum of 2 feet in length.
- B. Cuttings shall be any locally sourced species of dogwood (*Cornus spp*), willow (*Salix spp*), elderberry (*Sambucus spp*), nannyberry/arrowwood/black haw (*Viburnum spp*) buttonbush (*Cephalanthus spp*).
- C. Cuttings shall be harvested on site or sourced locally in a dormant condition and then soaked in water for a minimum of 14 days before installation. At no time shall cuttings be allowed to dry out before installation. Should installation of live cuttings fall outside of normal planting period (dormant season), then live cuttings should be installed in the face of the soil lift during the next dormant season.

## 2.4 COIR MATTING

- A. Coir Matting shall consist of 700 gram/m<sup>2</sup> woven coir such as Dekowe 700 or approved equal, identical to Section 02130 Coir Matting, Erosion Control Blanket, Straw Blanket and Mulch.
- B. Hardwood Stakes measuring 18 inches long by 3/4 inches by 3/4 inches shall be used to anchor coir matting on 3' centers at both the face and back of each lift. Alternatively an 18-inch long hardwood triangular stake (nominal 2" x 4" cut diagonally to form two stakes) shall be used.

## 2.5 UNDERLAYMENT FABRIC

- A. Underlayment Fabric shall be a machine produced mat of 70% agricultural straw and 30% coconut fiber blanket woven with biodegradable jute such as North American Green SC150BN or equivalent.

## 2.6 NON-WOVEN GEOTEXTILE FABRIC

- A. Provide Non-Woven Geotextile Fabric composed of needle punctured polypropylene which is 8 to 10 ounces per square yard.

## 2.7 EMBANKMENT SEED

- A. Seed for soil lift shall be identical to the seed mix listed in Section 02120, Permanent Seeding and Planting.

## 2.8 EMBANKMENT PROTECTION

- A. As specified on the plans the Coir Matting (2 rolls wide) and Erosion Control Blanket installed above Soil Lift shall be identical to Section 02130 Coir Matting, Erosion Control Blanket, Straw Blanket and Mulch
- B. As Specified on the Plans the Mulch applied to the graded surface above the elevation of installed Erosion Control Blanket shall be identical to product specified Section 02030 – Erosion and Sedimentation Control.

## PART 3 – EXECUTION

### 3.1 GENERAL

- A. Placement shall conform to the slopes and dimensions indicated on the plans and as directed by the Engineer.

### 3.2 PROCEDURE

- A. Flow from the stream should be diverted away from the work area.
- B. Excavate the lower embankment along extent of treatment area to approximately an elevation of 6-7 feet below the starting Bankfull Elevation. Toewood – Type A will require less excavation as this Toewood treatment is effectively building the bank out approximately 10-12 feet from the existing eroded slope.
- C. Place the footer logs in the configuration and angles shown on the Plan. The bottom elevation of the footer logs shall be equal to or below the streambed elevation. Footer logs will be buried within the proposed streambank or under woody debris when structure is complete.
- D. Install root wad logs with the root fan facing slightly upstream into the line of the current and fans aligned so that they overlap or have the appearance of overlapping when viewed from upstream. The tree trunks shall angle into the embankment as shown on the Plans with a footer log directly under each root collar.
- E. Place filler material (small logs, limbs, tree tops and brush) between and on top of the rootwad and footer logs and compress to form a layer that extends to the top of the rootwad collar.



- F. Backfill filler material with bedstone (cobble preferred but gravel fines acceptable if it is the only material present) to fill remaining void space. Compress bedstone. Contractor may be required to rinse bedstone with water from the channel using the equipment bucket to work stone into voids following compaction.
- G. Repeat steps E and F to create an additional layer of material approximately 12 inches above root collar. Layer to extend a minimum of 8 feet toward the bank.
- H. Place thin layer of gravel/fines and install cuttings perpendicular to the bank on 6-inch centers so that 10 to 20% of the stem length will be exposed after constructing Soil Lift. Add thin layer of gravel/fines overtop of cuttings.
- I. Construct soil lift and graded slope in the following manner:
1. Install layer of non-woven geotextile fabric extending from 6" behind the face of the proposed soil lift to the original embankment face along the entire extent of installed toewood.
  2. Roll out coir matting on top of the non-woven geotextile fabric so that 3 to 4 feet of coir matting overlaps the non-woven geotextile fabric on the bottom of the proposed lift.
  3. Roll out the underlayment fabric over the top of the coir matting so that 2 foot of material is on the embankment side of the form.
  4. Place soil excavated from the embankment between the face of the soil lift and the embankment in layers no more than 6 inches thick and compact . Repeat, as necessary to create a 1.5 foot tall lift or as specified in the plans.
  5. Compaction of each layer shall be completed with either the excavator bucket or hand tamping with a 10 x 10 inch or smaller compaction tool (Compaction too close to the face may need to be avoided).
  6. Seed the compacted fill along the face of the lift and a band 18 inches wide extending back toward the embankment with twice the normal density of seed referenced in the Permanent Seeding and Planting specification.
  7. Wrap both layers of fabric over the compacted soil and stretch fabric back toward the embankment.
  8. Stake the face of the lift and the back of the lift near the embankment with the wooden stakes specified in Section 20130- Erosion control Blanket.
  9. Excavate a trench perpendicular to the channel on both ends of the Soil Lift minimum every 50'. Place tag ends of Soil Lift Fabric in the trench and place a minimum 12" log sill perpendicular to flow on top of the Soil Lift Fabric. Backfill with soil to the top of lift elevation.
  10. Place additional row of live cuttings 6" on center.

11. Roll out another layer of the coir matting and underlayment fabric as per item 2 above.
12. Begin filling the embankment slope, compacting in six inch layers.
13. Upon reaching final grade, seed the slope per Section 20120.
14. Continue coir matting and/or erosion control blanket installation up slope to the specified elevation and key the blanket into the slope per Section 02130.
15. Mulch the remainder of the slope if any to include any disturbed areas beyond the top of the slope per Section 021 30.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. Toewood with Soil Lift - Type A will be measured on the basis of unit length in linear feet (LF) as measured in the field by actual horizontal survey or other measurement by Engineer and rounded to the nearest whole foot and shall include length of toewood and soil lift.
- B. Toewood will be paid at a unit price per each linear foot. No bid distinction will be made between Type A and Type B Toewood. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the Toewood structure for the duration of the Work, all complete as specified.
- C. Live cuttings included in the Toewood and Rootwad Composite installations which requires planting during the dormant season, will not be required for substantial completion but will be required for release of final 5% retainage.

END OF SECTION

SECTION 02370  
ROOTWAD COMPOSITE

PART 1 - GENERAL

1.1 SUMMARY

A. Work included: Provide and install rootwad composite as shown on the Plans, specified herein, and needed for a complete and proper installation.

B. Related Requirements

1. Section 02020 – Clearing, Grubbing, and Obstruction Removal
2. Section 02100 – Earthwork
3. Section 02110– Stone
4. Section 02030 – Temporary Erosion and Sediment Control

1.2 SUBMITTALS

A. Section 01340 – Shop Drawings, Product Data, and Samples.

B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Engineer to be present at beginning of Rootwad Composite installation. Engineer to approve of materials prior to construction and installed work following construction.

PART 2 – PRODUCTS

2.1 FOOTER LOGS

A. Logs greater than 10” in diameter and with a minimum trunk length of 10 feet shall be harvested from within the approved limits of disturbance if possible. Logs should be free from any visible decay or rotting.

2.2 ROOTWAD FAN

A. Logs greater than 10” in diameter and with a minimum trunk length of 10 feet shall be harvested from within the approved limits of disturbance if possible. Logs should be free from any visible decay or rotting. The size of the root ball and fan shall be

no smaller than 3 feet in diameter. The length of the rootwad and log shall be at least 15 feet.

### 2.3 INDOT CLASS I RIPRAP

- A. INDOT Class I Riprap (well graded material sized 3-24") shall be used as anchor rock, within, and overtop of rootwad logs.

### 2.4 CUTTINGS

- A. Cuttings shall have a minimum stem diameter of 1/2 inch and be a minimum of 2 feet in length.
- B. Cuttings shall be any locally sourced species of dogwood (*Cornus spp*), willow (*Salix spp*), elderberry (*Sambucus spp*), nannyberry/arrowwood/black haw (*Viburnum spp*) buttonbush (*Cephalanthus spp*).
- C. Cuttings shall be harvested on site or sourced locally in a dormant condition and then soaked in water for a minimum of 14 days before installation. At no time shall cuttings be allowed to dry out before installation. Should installation of live cuttings fall outside of normal planting period (dormant season), then live cuttings should be installed in the face of the soil lift during the next dormant season.

## PART 3 – EXECUTION

### 3.1 GENERAL

- A. Placement shall conform to the slopes and dimensions indicated on the plans and as directed by the Engineer.

### 3.2 CONSTRUCTION

- A. Flow from the stream should be diverted away from the work area.
- B. Excavate or reshape the channel to accommodate the area where the rootwad composite structure and rock is to be placed.
- C. Place the INDOT Class I Riprap (sized 3-18") as anchor stone, the footer logs, and rootwad fan in the configuration and angles according to the Plan. Backfill void space with Class I Riprap. The bottom elevation of the footer logs shall be equal to the proposed streambed elevation.
- D. Place 3" layer of soil and live cuttings perpendicular to the streambank on top of the rootwad fan and Class I Riprap. Install cuttings perpendicular to the bank on 6-inch

centers so that 10-20% of the stem length will be exposed. Top dress live cuttings with 1" layer of soil.

- E. At a 2H:1V slope, extend INDOT Class I Riprap (sized 3-24") to 5' above bankfull elevation or to top of bank, whichever is lower. INDOT Class I Riprap to be minimum 2' thick along embankment above rootwad fan.
- F. Grade embankment back at 2:1 to top of bank, seed, and place coir matting/erosion control blanket in accordance with Section 02130 of the specifications.

### 3.3 BASIS OF PAYMENT

- A. Rootwad Composite will be measured on the basis of unit length in linear feet (LF) as measured in the field by actual horizontal survey or other measurement by Engineer and rounded to the nearest whole foot and shall include all wood and rock installation as part of this structure.
- B. Rootwad Composite will be paid at a unit price per linear foot installed, all complete, as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as are necessary to furnish, install, and maintain the structure for the duration of the Work, all complete as specified.
- C. Live cuttings included in the Toewood and Rootwad Composite installations which requires planting during the dormant season, will not be required for substantial completion but will be required for release of final 5% retainage.

END OF SECTION

SECTION 02380  
LOG SILL

PART 1 – GENERAL

1.1 SUMMARY

- A. The work for this section includes providing labor, equipment and materials to install Log Sills as shown on the Plans and specified herein. The Log Sill structure establishes grade control within the earthen filled ravine near the upstream extent of the Marshall County project area.
- B. Related Requirements
  - 1. Section 02100 – Earthwork
  - 2. Section 02030 – Erosion and Sedimentation Control

1.2 SUBMITTALS

- A. Section 01340 – Shop Drawings, Product Data, and Samples.
- B. Product Data: Submit data on products used.

1.3 QUALITY ASSURANCE

- A. Use adequately sized and appropriate equipment and skilled operator(s) who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified methods needed for proper installation of the work.
- B. Engineer to be present during initial Log Sill installations and approve each structure installed as completed.

PART 2 – PRODUCTS

- 2.1 EARTHEN FILL. Contractor to repurpose soil fill material cut from adjacent north ravine slope and stream banks.
- 2.2 FOOTER & HEADER LOGS. Logs greater than 12” in diameter and with a minimum trunk length of 15 feet shall be harvested from within the approved limits of disturbance if possible. Logs should be free from any visible decay or rotting.

PART 3 – EXECUTION

3.1 GENERAL

- B. Placement shall conform to the angles, slopes and dimensions indicated on the Plans and as directed by the Engineer.

### 3.2 EXECUTION

- A. Contractor to remove all dead or decaying down logs from ravine. Dispose of logs in adjacent upland areas.
- B. Contractor to repurpose soil fill material cut from adjacent north ravine slope and stream banks. Ravine to be filled with maximum 12" compacted lifts to the lines and grades indicated on the plans. In general, 2H:1V ravine side slopes and a 4H:1V broad shaped swale profile to be graded to connect top of ravine slope to toe of river bank.
- C. Footer and Header logs to be installed during placement and compaction of earthen fill.
- D. Install footer logs at elevations to accommodate header log placement and final earthen fill. Typical top elevation of footer logs will be 15-30" below final grade.
- E. Footer logs to be keyed into ravine slopes horizontally to minimum 2' beyond original ravine face.
- F. Footer logs shall overlap minimum 2' with adjacent footer logs.
- G. Install header log overtop of footer log.
- H. Staple non-woven geotextile fabric to the top of the header log and drape over the upslope face of the header and footer logs.
- I. Backfill and compact behind and in front of log sills.
- J. Place additional 3" fill soil over top of header log and compact.
- K. Seed all disturbed area within the ravine with Soil Stabilization seed mix and protect with Erosion Control Blanket to 3' beyond the top of proposed ravine slope. Overbank areas may be stabilized with Straw Blanket.

### 3.3 BASIS OF MEASUREMENT AND PAYMENT

- A. Log Sills will be paid at a unit price per each installed, all complete, as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and performing all operations as

are necessary to furnish, install, and maintain the log sill structure for the duration of the Work, all complete as specified

END OF SECTION



# APPENDIX A

## PERMITS



**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CORPS OF ENGINEERS**  
**DETROIT DISTRICT, MICHIANA BRANCH**  
**2422 VIRIDIAN DRIVE SUITE #200**  
**SOUTH BEND, INDIANA 46628-3561**

June 02, 2021

Regulatory Office  
File Number LRE-2020-02661-100-N21

Scott Pelath  
Kankakee River Basin and Yellow River Basin Development Commission  
6100 Southport Road  
Portage, Indiana 46368

Dear Mr. Pelath,

Please refer to your application for a Department of the Army (DA) permit to discharge fill material and re-grade banks along approximately 8,600 linear feet of the Yellow River as part of an aquatic restoration project located near County Line Road (CR South 1200 East) in Marshall County and Starke County, Indiana. We have verified that the project is authorized by Nationwide Permit 27 as published in the Federal Register.

You may proceed with the work per the following project description, attached drawings, and attached general and special conditions:

Discharge a total of approximately 8,172 cubic yards of material waterward the Ordinary High Water Mark of the Yellow River to construct eleven (11) toe wood reaches, ten (10) boulder glide structures, ten (10) J-hook structures, ten (10) riffle structures, three (3) cross vanes, and two (2) rock vanes. Specific locations and dimensions for structures listed above are located on Sheet 9 of the attached plans. Additionally, temporarily discharge a total of approximately 6,150 cubic yards of rock and/or sand (sandbags) to construct temporary cofferdams and crossings for dewatering purposes and construction access. Temporary cofferdams and crossings shall be installed per the locations and dimensions depicted on Sheet 14 – Sheet 18 of the attached plans.

**Special Conditions:**

1. If you discover any unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately stop work in that area and notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
2. Conditions 1 – 5 provided in the attached Section 401 Water Quality Certification, dated May 04, 2021, from the Indiana Department of Environmental Management, are binding and must be incorporated into this project.



3. Tree clearing is prohibited during the period of April 01 – September 30, unless you provide negative results of a survey for northern long-eared bat and Indiana bat conducted under the appropriate U.S. Fish and Wildlife Service summer survey protocol and receive approval from this office prior to initiating any tree clearing.
4. All fill shall consist of clean, inert materials from an upland source. The fill material must be free from toxic substances, fines, oil and grease, debris, wood, general refuse, plaster, and other pollutants, and shall contain no broken asphalt, oil-based material, or metal.
5. Erosion controls, such as silt fencing, shall be placed to prevent unauthorized discharge material from entering wetlands or waterways. These must be erected prior to starting work, and their effectiveness must be maintained until all work at the site is completed and the area has been stabilized against erosion.
6. All temporary fills shall be removed in their entirety upon completion of the project.
7. After completion of construction, all disturbed areas shall be permanently stabilized by seeding with native plants and/or by the planting of trees or shrubs native to the area and, if possible, already represented on the site.

Any construction activities other than those shown on the plans may not qualify for the authorization. If you contemplate any changes or additional activities from those depicted on the plans, please submit them to this office for authorization review prior to any construction. On completion of the work, you must fill in and return the enclosed COMPLETION REPORT.

We are obligated to provide recipients of permit verifications with a jurisdictional determination (JD) when requested to do so. The Corps of Engineers has the following options with respect to JDs: (1) Approved Jurisdictional Determinations (AJD), which are considered “official” JDs and can be administratively appealed; (2) Preliminary Jurisdictional Determinations (PJD), which are non-binding JDs and advise an affected party that the Corps of Engineers believes there may be waters of the United States on the property that fall under the Corps’ regulatory authority and enables the Corps and a permit applicant or other affected party to resolve certain jurisdiction and permit issues without expending time on making an official determination of the Corps’ jurisdiction; and (3) No Jurisdiction Determination (NJD), which is used in situations where issuance of a JD is deemed unnecessary by a permit applicant or other affected party because Corps’ jurisdiction is undisputed (e.g., work is in a navigable water of the United States) or not subject to question. The NJD option requires less documentation than a PJD and likewise enables the Corps and a permit applicant or other affected party to resolve jurisdiction and permit issues without expending time on an official determination of the Corps’ jurisdiction.



Per the information in your application and information gained during our inspection of the project site, we believe the work described in this permit verification will occur in waters of the United States subject to the Detroit District, U.S. Army Corps of Engineers' regulatory authority under Section 404 of the Clean Water Act. A PJD for this permit verification is enclosed.

Our intended use of a PJD in this instance does not preclude an applicant or other affected party from requesting an AJD, which would provide an official determination of jurisdictional waters on a site. As noted above, an AJD can be administratively appealed. Information regarding the appeals process can be found in the enclosed form entitled Notification of Administrative Appeals Options and Process and Request for Appeal. If use of a PJD satisfies your needs with respect to the above-discussed activity, please sign and return a copy of the PJD to our office within 30 days of the date of this letter. As stated in paragraph 2 of the enclosed PJD, undertaking the work subject to this permit verification, even if you do not return a signed copy of the PJD, constitutes acceptance of the use of the PJD and agreement that all wetlands and waterbodies on the site affected in any way by the work in question are jurisdictional waters of the United States. Please contact us if you have questions on our appeals process.

This verification is valid until the NWP is modified, reissued, or revoked. Forty (40) of the existing NWPs, including the one(s) used for this authorization, are scheduled to be modified, reissued, or revoked prior to March 18, 2022. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit.

As per 33 CFR 325, Appendix A, representatives from this office are allowed to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of the Nationwide Permit.

Should you have any questions, please contact me at the above address, by E-Mail at [Scott.C.Girardi@usace.army.mil](mailto:Scott.C.Girardi@usace.army.mil), or by telephone at (574) 232-1952 ext. 21968. In all communications, please refer to File Number LRE-2020-02661-100-N21.



We are interested in your thoughts and opinions concerning your experience with the Detroit District, Corps of Engineers Regulatory Program. If you are interested in letting us know how we are doing, you can complete an electronic Customer Service Survey from our web site at: <https://regulatory.ops.usace.army.mil/customer-service-survey/>. Alternatively, you may contact us and request a paper copy of the survey that you may complete and return to us by mail or fax. Thank you for taking the time to complete the survey, we appreciate your feedback.

Sincerely,

A handwritten signature in black ink, appearing to be 'SG' or similar, enclosed in a loop.

Scott C. Girardi  
Regulatory Project Manager  
Michiana Branch

Copy Furnished

Cardno, Inc., St. Clair, w/encl.  
IDEM, Office of Water Quality, Randolph, 2021-191-75-JWR-A, w/encl.  
IDNR, Division of Water, Smithers, w/encl.





#### **A. Nationwide Permit General Conditions:**

To qualify for NWP authorization, the permittee must comply with the following general conditions, as appropriate. These conditions are selected from those published in the Federal Register that are particularly relevant to the construction and/or operation of this particular authorized activity. The complete text is available at our website <https://www.lre.usace.army.mil/Missions/Regulatory-Program-and-Permits/> under "Detroit Regulatory Quick" select "Detroit District General Permit Types" and then choose "Nationwide Permits with Michigan Regional Conditions" OR "Nationwide Permits with Indiana Regional Conditions"; or, you may contact the Detroit District directly for the information. We have done our best to verify that your project complies with the others, where applicable.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high

flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre- construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

17. Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.



(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/ THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown

historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

---

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the



certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

#### **B. Further Information**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.





## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204  
(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Eric J. Holcomb  
*Governor*

Bruno L. Pigott  
*Commissioner*

### **Section 401 Water Quality Certification**

#### VIA ELECTRONIC MAIL:

IDEM Number: 2021-191-75-JWR-A  
USACE Number: LRE-2020-02661-100  
Project Name: Yellow River Bank Stabilization  
Authority: 327 IAC 2. CWA Sections: 301, 302, 303, 306, 307, & 401  
Date of Issuance: May 4, 2021  
Impacts must be completed by: May 4, 2023

Approved:

Brian Wolff, Branch Chief  
Surface Water and Operations  
Office of Water Quality

Applicant / Permittee: Kankakee & Yellow River Basin Development  
Commission  
Attention: Scott Pelath  
6100 Southport Road  
Portage, IN 46383

Agent: Cardno, Inc.  
Attention: Ross St. Clair  
708 Roosevelt Road  
Walkerton, IN 46574

Project Location: Marshall & Starke Counties  
Upstream Lat: 41.2741, Long: -86.4600  
Downstream Lat: 41.2734, Long: -86.4801  
The project is located on the Yellow River beginning  
approximately 2,700 feet upstream of County Line







Road (CR 1200) and ending approximately 6,400 feet downstream of the County Line Road (CR 1200) bridge.

**Project Description:** Stabilize approximately 8,600 linear feet of the Yellow River by regrading and planting eroding banks, installing riffle and pool structures, boulder glides, j-hooks, cross veins, boulder clusters, and sill logs. Temporary impacts include temporary crossings, cofferdams, and dewatering.

### Authorized Impacts

STREAM IMPACT(S)	Length of Impact (linear feet)		
	Ephemeral	Intermittent	Perennial
Type of Impact:			
Bank grading and instream structures			8,600

Application Signed: March 4, 2021

Application Received: March 9, 2021

Application Amendments  
Received: April 7, 2021

Based on available information, it is the judgment of this office that the impacts from the proposed project as outlined by this Section 401 Water Quality Certification and described in your application will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if you comply with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in your application. Any changes in project design or scope not detailed in the application described above or modified by this Section 401 Water Quality Certification are not authorized.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in enforcement action against you. If an enforcement action is pursued, you could be assessed up to \$25,000 per day in civil penalties. You may also be subject to criminal liability if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.



## **Conditions of the Section 401 Water Quality Certification**

### **1.0 General**

- (a) Per 40 CFR Part 121.5, the information provided in a certification request must be true and accurate. Therefore, the project must be implemented as depicted and described in the application for Section 401 Water Quality Certification.
- (b) Per 33 CFR 325.6(c), 327 IAC 5-2-6, IC 13-15-3-2 the federal license shall have an established timeframe and the state permit must be for a fixed term, no longer than five years. Therefore, all approved discharges must be completed within the term of the valid federal permit, not to exceed five years.
- (c) Per IC 13-14-2-2, the department may inspect public or private property to inspect for and investigate possible violations of environmental management laws. Therefore, the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials must be allowed:
  - (1) to enter your property, including impact and mitigation site(s);
  - (2) to have access to and copy at reasonable times any records that must be kept under the conditions of this certification;
  - (3) to inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation wetland site;
  - (4) to sample or monitor any discharge of pollutants or any mitigation site.

### **2.0 Planting**

Per 327 IAC 2, the goal of Indiana's water quality standards is to restore and maintain the chemical, physical and biological integrity of the state's waters. Mitigation of dredge and fill impacts to Indiana's water resources is required to maintain water quality.

- (a) Per 40 CFR 230.91; 33 CFR 332.3; 327 IAC 2-1; 327 IAC 2-1.5, implementation of the submitted and approved planting plan is necessary to ensure the water quality functions of the impacted waters are replaced, preventing a reduction in water quality. Therefore, implement the planting plan as described in the application (referred to collectively hereinafter as the "planting plan"), and as modified by the conditions of this certification.
- (b) Per 33 CFR 332.3 (m); 327 IAC 2-1; 327 IAC 2-1.5, implementing the planting plan within the same timeframe as the construction of the project can reduce



the temporal losses to water quality functions. Therefore, complete activities to implement the planting plan upon completion of construction activities. These activities include excavation, grading, installation of hydrologic controls, and planting.

### **3.0 Planting Success Criteria**

Per 33 CFR 332.5; 327 IAC 2-1; 327 IAC 2-1.5, minimum success criteria must be set to ensure the planting plan adequately replaces the functions and water quality benefits impacted during project implementation. Therefore, the following success criteria must be demonstrated.

Ensure all areas specified to receive the Stabilization Seed Mix and tree and shrub plantings meet the following success criteria at the end of two (2) years:

- (a) The areas being planted with the Stabilization Seed Mix must exhibit 90% vegetative cover.
- (b) All stream banks are stable and show no signs of gully erosion from overland flow or excessive bank scour from stream flows.
- (c) 50% of the planted trees and shrubs must be alive and showing signs of growth.
- (d) All bank and instream structures shall be stable and in their approved location and condition as specified in the approved plans.

### **4.0 Monitoring**

Per 33 CFR 332.6, 327 IAC 2-1; 327 IAC 2-1.5: Monitoring is required to ensure that the planting site is meeting the success criteria necessary to demonstrate that the functions and water quality values are being replaced successfully. Therefore, the following monitoring steps must be completed.

- (a) Monitor the planting locations annually for two (2) years to determine if they are meeting the success criteria. The monitoring should commence one full growing season after completion of the plantings. Monitoring reports must be submitted to this office no later than December 31st of each year until released from monitoring by this office.
- (b) Monitoring reports must include the following:
  - (1) The IDEM identification number.
  - (2) Discussion of plant community development at the planting sites.



- (3) Discussion of methods or means used to determine compliance with the success criteria.
  - (4) Photographs representative of the planting sites.
  - (5) Identification of any problems with meeting the success criteria.
  - (6) Corrective actions for identified problems.
- (c) Once you believe that the planting areas meet or exceed all the success criteria, you may submit a proposed final monitoring report to IDEM and suspend monitoring. IDEM will not release the site until you have demonstrated, through monitoring reports that the site is compliant. If IDEM confirms that the mitigation site meets or exceeds all of the success criteria, IDEM will notify you that the mitigation is complete and that you may permanently discontinue monitoring. If the site does not meet the specified success criteria then extended monitoring or other corrective actions may be required.

## **5.0 Erosion and Sediment Control**

Per 40 CFR 122.26, 327 IAC 15; 327 IAC 2-1; 327 IAC 2-1.5, the use of appropriate stormwater control measures and maintenance thereof will prevent any sediment laden water from migrating off site and entering waterways and wetlands, potentially impairing water quality. Therefore, the following erosion and sediment control steps must be completed.

- (a) Implement erosion and sediment control measures on the construction site prior to land disturbance to minimize soil from leaving the site or entering a waterbody. Erosion and sediment control measures shall be implemented using an appropriate order of construction (sequencing) relative to the land-disturbing activities associated with the project. Appropriate measures include, but are not limited to, silt fence, diversions, and sediment traps.
- (b) Monitor and maintain erosion control measures and devices regularly, especially after rain events, until all soils disturbed by construction activities have been permanently stabilized.
- (c) Use run-off control measures, including but not limited to diversions and slope drains. These measures are effective for directing and managing run-off to sediment control measures and for preventing direct run-off into waterbodies.
- (d) Install and make appropriate modifications to erosion and sediment control measures based on current site conditions as construction progresses on the site. The Indiana Storm Water Quality Manual or similar guidance documents are available to assist in the selection of measures that are applicable to individual project sites.





- (e) Implement appropriate erosion and sediment control measures for all temporary run-arounds, cofferdams, temporary causeways, temporary crossings, or other such structures that are to be constructed within any waters of the state. Minimize disturbance to riparian areas when constructing these structures. Construct temporary run-arounds, temporary cofferdams, temporary causeways, temporary crossings, or other such structures of non-erodible materials. Temporary crossings and causeways must be completely removed upon completion of the project and the affected area restored to pre-construction contours, grades, and vegetative conditions.
- (f) Direct cofferdam dewatering activities to an appropriate sediment control measure or a combination of measures prior to discharging into a water of the state to minimize the discharge of sediment-laden water.
- (g) Stabilize and re-vegetate disturbed soils as final grades are achieved

## **6.0 Construction**

Per 327 IAC 2-1-6(b)(4) the protection of existing uses for aquatic life is required and, per 327 IAC 2-1.3-2 (4) the utilization of best management practices helps ensure the protection of existing uses. Therefore, the following best management practices are required.

- (a) Avoid in stream channel work during the fish spawning season (April 1 through June 30).
- (b) Clearly mark wetlands and streams that are to remain undisturbed on the project site.
- (c) Restrict channel work and vegetation clearing to the minimum necessary for the installation of any structures. Work from only one side of the stream, and, where possible, from the side of the stream which does not have adjacent wetlands. If no wetlands are present, work from the side with the fewest trees and woody vegetation.

### **Other Applicable Permits**

Based on the proposed land disturbance, a construction stormwater general permit is required for the project. Permit coverage must be obtained prior to the initiation of land-disturbing activities. Information related to obtaining permit coverage is available at [www.in.gov/idem/stormwater](http://www.in.gov/idem/stormwater) or by contacting the IDEM, Stormwater Program at 317-233-1864 or via email at [Stormwat@idem.IN.gov](mailto:Stormwat@idem.IN.gov).



This certification does not relieve you of the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person. You may wish to contact the Indiana Department of Natural Resources at 317-232-4160 (toll free at 877-928-3755) concerning the possible requirement of natural freshwater lake or floodway permits.

This certification does not:

- (1) Authorize impacts or activities outside the scope of this certification;
- (2) Authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
- (3) Convey any property rights of any sort, or any exclusive privileges;
- (4) Preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
- (5) Authorize changes in the plan design detailed in the application.

**Notice of Right to Administrative Review (Permits)**

If you wish to challenge this permit, you must file a Petition for Administrative Review with the Office of Environmental Adjudication (OEA), and serve a copy of the petition upon IDEM. The requirements for filing a Petition for Administrative Review are found in IC 4-21.5-3-7, IC 13-15-6-1 and 315 IAC 1-3-2. A summary of the requirements of these laws is provided below.

A Petition for Administrative Review must be filed with the Office of Environmental Adjudication (OEA) within fifteen (15) days of the issuance of this notice (eighteen (18) days if you received this notice by U.S. Mail), and a copy must be served upon IDEM. Addresses are:

Director	Commissioner
Office of Environmental Adjudication	Indiana Dept. of Environmental Management
Indiana Government Center North	Indiana Government Center North
100 North Senate Avenue, Room N103	100 North Senate Avenue, Room 1301
Indianapolis, Indiana 46204	Indianapolis, Indiana 46204

The petition must contain the following information:

- (a) The name, address and telephone number of each petitioner.
- (b) A description of each petitioner's interest in the permit.
- (c) A statement of facts demonstrating that each petitioner is:
  - (1) a person to whom the order is directed;
  - (2) aggrieved or adversely affected by the permit; or
  - (3) entitled to administrative review under any law.
- (d) The reasons for the request for administrative review.



- (e) The particular legal issues proposed for review.
- (f) The alleged environmental concerns or technical deficiencies of the permit.
- (g) The permit terms and conditions that the petitioner believes would be appropriate and would comply with the law.
- (h) The identity of any persons represented by the petitioner.
- (i) The identity of the person against whom administrative review is sought.
- (j) A copy of the permit that is the basis of the petition.
- (k) A statement identifying petitioner's attorney or other representative, if any.

Failure to meet the requirements of the law with respect to a Petition for Administrative Review may result in a waiver of your right to seek administrative review of the permit. Examples are:

- (a) Failure to file a Petition by the applicable deadline;
- (b) Failure to serve a copy of the Petition upon IDEM when it is filed; or
- (c) Failure to include the information required by law.

If you seek to have a permit stayed during the administrative review, you may need to file a Petition for a Stay of Effectiveness. The specific requirements for such a Petition can be found in 315 IAC 1-3-2 and 315 IAC 1-3-2.1.

Pursuant to IC 4-21.5-3-17, OEA will provide all parties with notice of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this action. If you are entitled to notice under IC 4-21.5-3-5(b) and would like to obtain notices of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this action without intervening in the proceeding you must submit a written request to OEA at the address above.

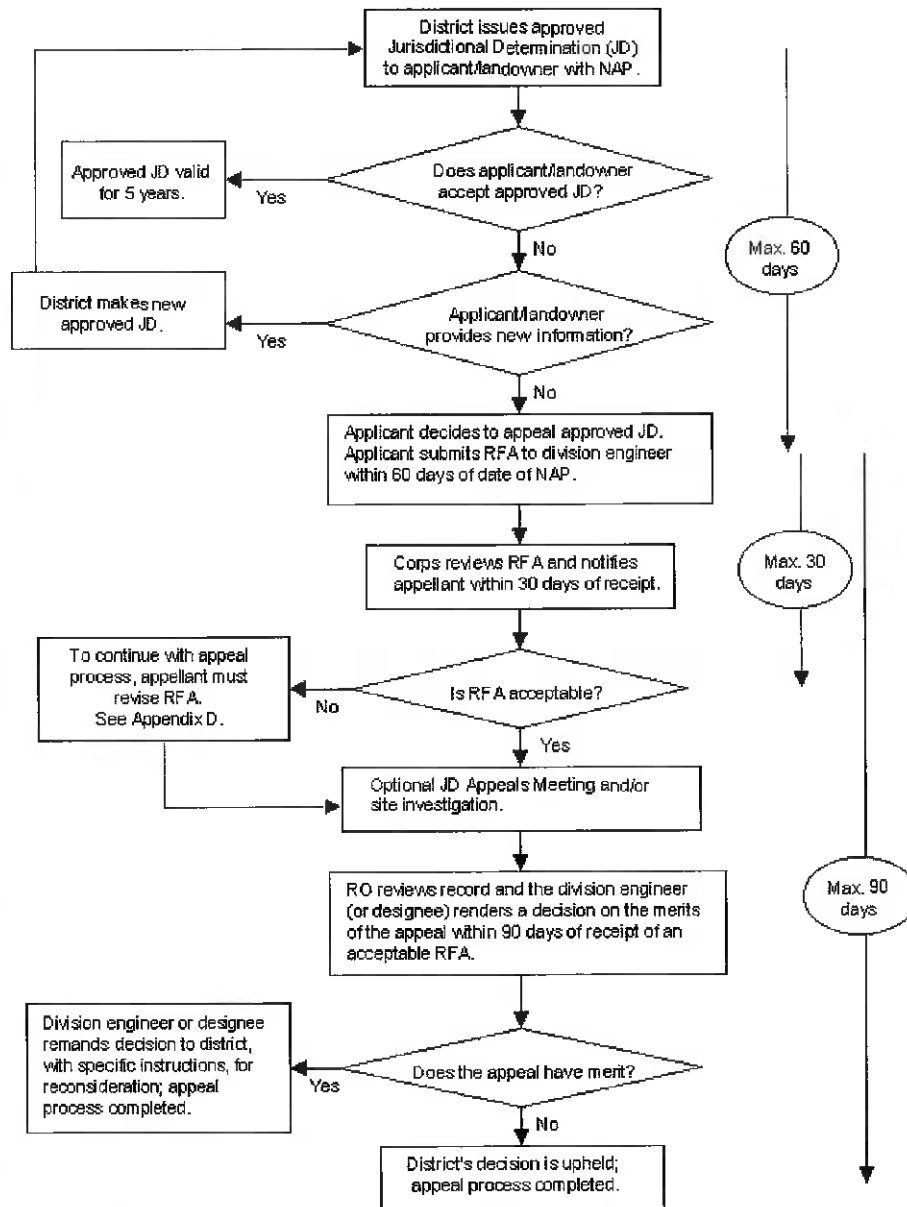
If you have procedural or scheduling questions regarding your Petition for Administrative Review, additional information on the review process is available at the website of the Office of Environmental Adjudication at <http://www.in.gov/oea>.

If you have any questions about this certification, please contact Jason Randolph, Project Manager, by email at [jrandolp@idem.on.gov](mailto:jrandolp@idem.on.gov) or by phone at 317-233-0467.

cc: Scott Girardi, USACE-Detroit, Michiana Branch  
Liz McCloskey, USFWS  
Matt Smedley, IDNR  
Ross St. Clair, Cardno, Inc.



### Administrative Appeal Process for Approved Jurisdictional Determinations







NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL		
Applicant: Scott Pelath	File Number: LRE-2020-02661-100-N21	Date: June 02, 2021
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
XX	PRELIMINARY JURISDICTIONAL DETERMINATION	E
<p><b>SECTION I -</b> The following identifies your <b>rights</b> and <b>options</b> regarding an administrative appeal of the <b>above</b> decision. Additional information may be found at <a href="http://www.usace.army.mil/cecw/pages/reg_materials.aspx">http://www.usace.army.mil/cecw/pages/reg_materials.aspx</a> or Corps regulations at 33 CFR Part 331.</p>		
<p><b>A: INITIAL PROFFERED PERMIT:</b> You may accept or object to the permit.</p> <ul style="list-style-type: none"> <li>• <b>ACCEPT:</b> If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.</li> <li>• <b>OBJECT:</b> If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.</li> </ul>		
<p><b>B: PROFFERED PERMIT:</b> You may accept or appeal the permit.</p> <ul style="list-style-type: none"> <li>• <b>ACCEPT:</b> If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.</li> <li>• <b>APPEAL:</b> If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.</li> </ul>		
<p><b>C: PERMIT DENIAL:</b> You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.</p>		
<p><b>D: APPROVED JURISDICTIONAL DETERMINATION:</b> You may accept or appeal the approved JD or provide new information.</p> <ul style="list-style-type: none"> <li>• <b>ACCEPT:</b> You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.</li> </ul>		



- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

## **SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

### **POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

Scott C. Girardi  
Regulatory Project Manager  
U.S. Army Corps of Engineers  
Detroit District, Michiana Branch  
2422 Viridian Drive, Suite 200  
South Bend, Indiana 46628

Tel. (574) 232-1952 ext. 21968

If you only have questions regarding the appeal process you may also contact:

Regulatory Appeal Review Officer  
ATTN: Ms. Suzanne Chubb  
Army Engineer Division  
550 Main Street, Room 10-714  
Cincinnati, Ohio 45202-3222

Tel. (513) 684-7261 Fax (513) 684-2460

**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:



## Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

### **BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PJD:** 02-JUN-2021

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:**

Scott Pelath  
Kankakee River Basin and Yellow River Basin Development Commission  
6100 Southport Road  
Portage, Indiana 46368

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

Detroit District, Michiana Branch, Yellow River Bank Reconstruction, LRE-2020-02661-100-N21

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:** The project site is located on the Yellow River beginning approximately 2,700 feet upstream of County Line Road (CR South 1200 East) and ending approximately 6,400 feet downstream of the County Line Road bridge.

State: Indiana County/parish/borough: Starke County/Marshall County City: Oak Grove  
Center coordinates of site (lat/long in degree decimal format):  
Lat.: 41.273144° Long.: -86.470971°

Universal Transverse Mercator: 16

Name of nearest waterbody: Yellow River

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

- ✓ Office (Desk) Determination. Date: June 01, 2021
- ✓ Field Determination. Date(s): December 18, 2020

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO  
REGULATORY JURISDICTION.

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Pelath, River	41.273144	-86.470971	8,600 feet	Non-wetland waters	Section 404
Pelath, Wetland 01	41.272914	-86.477792	0.5 acres	Wetland	Section 404
Pelath, Wetland 02	41.276099	-86.471024	0.1 acres	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification"

<sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



## Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

(PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

### SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:  
Map: Ross St. Clair, Cardno, Inc., Application Package.
- ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - ☒ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report. Rationale: \_\_\_\_\_
- ☐ Data sheets prepared by the Corps: \_\_\_\_\_
- ☐ Corps navigable waters' study: \_\_\_\_\_
- ☒ U.S. Geological Survey Hydrologic Atlas: USGS National Hydrography Dataset.
  - ☒ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000; IN-Donaldson.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: Regulated Waters Delineation Report Yellow River, Marshall and Starke Counties, Indiana; Appendix A, Figures, Figure 3 Soil Map.
- ☒ National wetlands inventory map(s). Cite name: Regulated Waters Delineation Report Yellow River, Marshall and Starke Counties, Indiana; Appendix A, Figures, Figure 2 National Wetland Inventory.

<sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.





Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

\_\_\_\_ State/local wetland inventory map(s): \_\_\_\_\_.

\_\_\_\_ FEMA/FIRM maps: \_\_\_\_\_.

\_\_\_\_ 100-year Floodplain Elevation is: \_\_\_\_\_ (National Geodetic Vertical Datum of 1929)


XX Photographs: \_\_\_\_\_ Aerial (Name & Date): \_\_\_\_\_.

or XX Other (Name & Date): Regulated Waters Delineation Report Yellow River, Marshall and Starke Counties, Indiana; Appendix B, Site Photographs, January 2021; Site Inspection Photographs December 18, 2020.

\_\_\_\_ Previous determination(s). File no. and date of response letter: \_\_\_\_\_.

XX Other information (please specify): Site Inspection Report in Case File, December 18, 2020.

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

 June 02, 2021

\_\_\_\_\_  
Signature and date of Regulatory staff member completing PJD

\_\_\_\_\_  
Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)<sup>1</sup>

<sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



NATIONWIDE PERMIT COMPLETION REPORT

CELRE-ERM

Chief, Compliance and Enforcement Branch  
Regulatory Office  
U.S. Army Corps of Engineers  
477 Michigan Avenue, Room 603  
Detroit, Michigan 48226-2550

Dear Sir,

You are hereby notified that work verified as qualifying for Nationwide Permit 27 under File No. LRE-2020-02661-100-N21 to discharge fill material and re-grade banks along approximately 8,600 linear feet of the Yellow River as part of an aquatic restoration project located near County Line Road (CR South 1200 East) in Marshall County and Starke County, Indiana, issued to Scott Pelath of the Kankakee River Basin and Yellow River Basin Development Commission was completed in accordance with the verification on:

\_\_\_\_\_  
(Date work completed)

\_\_\_\_\_  
(Permittee's Signature)

**IMPORTANT**

1. This COMPLETION REPORT MUST BE MAILED to the above addressee within 10 days after completion of work covered by the NATIONWIDE PERMIT to ensure an accurate Government record of data affecting navigation.
2. Where dredging soundings are made of projects which include dredging, a copy of the soundings should accompany this report. If the soundings are measured from the water surface and have not been corrected to International Great Lakes Datum plane, the hour and date soundings was made should be noted on sounding reports.





**State of Indiana  
Department of Natural Resources**



**CERTIFICATE OF APPROVAL**

**Application #: FW-30979-0**

This Certificate of Approval is a Permit for Construction under the authority of the Indiana Flood Control Act, IC 14-28-1 with 312 IAC 10 and IC 14-29-1 with 312 IAC 6 as administered by the Department of Natural Resources.

**Approval Issued To:** Kankakee River Basin and Yellow River Basin Development Commission, Scott Pelath, 6100 Southport Road, Portage, IN

**Approval Issued By:**

**Mail Date:** 6/11/2021

Jordan Smithers, CFM, Division of Water

**Permit Effective Date: 06/29/2021**

**Permit Expiration Date: 06/11/2023**

Pursuant to IC 4-21.5-3-5(f), this Permit becomes Effective eighteen (18) days from the Mail Date to provide a stay period for a Petition for Administrative Review with the Indiana Natural Resources Commission, Division of Hearings. Initiating construction authorized in this Permit prior to the Permit Effective Date constitutes a violation. This Permit is only valid until the Permit Expiration Date.

This Permit may be renewed one (1) time if a written request is received at the DNR, Division of Water, prior to the Permit Expiration Date.

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**PROJECT INFORMATION:**

Waterbody: Yellow River

County: Marshall

**Project Description Narrative:** The Starke and Marshall County Surveyors propose grading and bank stabilization work within numerous areas of an 8,000' section of the Yellow River. The project will include stabilizing the stream with floodway excavation, debris removal, constructed riffles, boulder cross vanes, j-hooks, toe wood, root wads, bank shaping and plantings. Constructed riffles will be utilized as temporary crossings and dewatering utilizing BMPs will occur. Approximately 1.5-acres of floodway forest habitat removal will occur and be restored upon completion of the work. Additionally, 500 trees and shrubs will be planted along areas of bank grading activities.

**Project Location:** Beginning approximately 1,500' upstream of the County Line Road crossing and extending approximately 8,000' downstream. near Culver

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**PERMIT CONDITIONS:**

This Certificate of Approval is valid only if the construction project is in compliance with all Conditions in this Permit.

**DNR PROJECT SPECIFIC PERMIT CONDITIONS**

- 1) Revegetate all bare and disturbed areas, except for land that will be used for crop production in the next growing season, with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion. Low endophyte tall fescue may be used in the ditch bottom and side slopes only.
- 2) Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Water's Environmental Unit.
- 3) Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5" in diameter, living or dead, with loose hanging bark or with cracks, crevices, or cavities) from April 1 through September 30.
- 4) Do not excavate or place spoil in any riparian wetland.
- 5) Stabilize banks as work progresses so that no more than 200 lineal feet are left disturbed at the completion of the workday.
- 6) Revegetate all areas disturbed during debris and sediment removal. Permanent seed and fertilize disturbed ditch banks at the end of each day. Revegetate areas with one of the seeding mixtures or species listed in the VEGETATIVE STABILIZATION AND SEEDING PRACTICE of the INDIANA DRAINAGE HANDBOOK from the Division of Water, Indiana Department of Natural Resources (October 1996) or other species that are approved by the Department as being suitable to site and climate conditions. At the completion of the project, re-seed and fertilize areas that do not have sufficient vegetative cover to control erosion.
- 7) Revegetate all spoil materials deposited in areas not used for crop production.
- 8) Install appropriate armament below pipe outfalls.
- 9) A representative of the Surveyor's Office or their contractor shall inspect erosion and sediment control practices daily and repair as necessary until all construction is complete and disturbed areas are permanently stabilized.
- 10) Install appropriate sediment control measures to prevent the flow of sediment laden water, resulting from dredging operations, back into the watercourse.
- 11) All work must conform with the existing bank at the upstream and downstream limits of the project site.
- 12) Except for trees cabled in-place for bank protection, do not leave felled trees, brush, or other debris in the floodway.
- 13) Place all excavated materials at least 10 feet landward of the top of the ditch bank; spread all excavated materials evenly to a thickness not to exceed 12 inches and slope landward from the channel or completely removed from the floodway.
- 14) Once completed, the onsite stabilization work and plantings must be monitored for a minimum of three (3) years. Yearly monitoring reports must be submitted to the Statewide Region Environmental Biologist at the Division of Fish and Wildlife, 402 W. Washington St., RM W273, Indianapolis, IN 46204-2781 by December 31 of each year. Should monitoring indicate that excessive mortality or bank destabilization is occurring, a discussion of the likely issues causing the mortality must be addressed along with proposed implementation of the corrective actions.
- 15) The restoration plantings must have a minimum survival of 75% of planted material (volunteers will not be included in survival counts, only planted specimens). If the site fails to meet success criteria in any year, replanting shall occur prior to the next monitoring period, and an additional year of monitoring will be required for each year of additional plantings.
- 16) Plant list substitutions need to be approved by the DNR Environmental Biologist.

#### DNR PROJECT GENERAL PERMIT CONDITIONS

- 1) Any modifications or additional construction beyond what was shown on plans received at the Division of Water shall require an additional review and approval from the Department of Natural Resources.
- 2) This Permit must be posted and maintained at the project site until the project is completed.
- 3) This Permit shall not be assigned or transferred without the prior written approval of the Department of Natural Resources.
- 4) If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (IC 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days.
- 5) This Permit may be revoked by the Department of Natural Resources for violation of any condition or applicable statute or rule.
- 6) The Department of Natural Resources shall have the right to enter upon the site of the permitted activity for the purpose of inspecting the work authorized under this Permit.

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#### RIGHT TO ADMINISTRATIVE REVIEW:

A party may appeal this Department of Natural Resources Action through the administrative review procedures found in the Administrative Orders and Procedures Act, IC 4-21.5, and the rules promulgated thereunder 312 IAC 3-1. If an appeal is filed, the final agency determination will be made by the Natural Resources Commission following a legal proceeding conducted before an Administrative Law Judge. The Department of Natural Resources will be represented by legal counsel at all stages of administrative review.

In order to obtain an administrative review, a written petition must be filed with the Division of Hearings within 18 days of the Mail Date of the Action. The petition must contain specific reasons for the appeal and indicate the portion or portions of the project to which the appeal pertains. The petition must be addressed to the Division of Hearings, Indiana Government Center North, Room N103, 100 North Senate Avenue, Indianapolis, Indiana 46204

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#### **SERVICE LIST:**

##### Applicant(s):

Kankakee River Basin and Yellow River Basin Development Commission, Scott Pelath, 6100 Southport Road, Portage, IN

##### Agent(s):

Cardno, Ross St.Clair, 708 Roosevelt Road, Walkerton, IN 46574

Cardno Inc, Benjamin Long, 708 Roosevelt Road, Walkerton, IN 46574

##### Adjacent Landowners and Interested Parties:

Kenneth and Ellie Porter, 9815 East Yellowstone Trail, Grovetown, IN 46531

Richard and Julie Salyers, 2075 South 1200 East, Culver, IN 46511

Stephen and Paula Sturman, 2155 South 1200 East, Culver, IN 46511

Loraine Crum, 1855 South 1200 East, Culver, IN 46511

Harold and Kelly Kruder and Jeffery Novotny, 13852 West County Line Road, Culver, IN 46511

Dale Fancher Jr, 350 Ridgeview Drive, Chesterton, IN 46304

Chapman Edna A Trustee or Successors, 6416 Mulberry Avenue, Portage, IN 46368

Tim Hildebrand II, 12312 Duttlinger Lane, Wheatfield, IN 46392

Oscarine Brasseur, 1400 West McKinley, Pomona, CA 91768

John and Lawana Singleton, 12700 Upas Road, Plymouth, IN 46563

Rouch Living Trust, 14222 West County Line Road, Culver, IN 46511

Benoit Ronald and Dona Trust, 2167 South 1200 East, Culver, IN 46511

##### Courtesy Notification:

US Army Corps of Engineers, Detroit District, Michiana Branch 2422 Viridian Drive, Suite 200, South Bend, IN 46628

Starke County SWCD, Andrea Surma, 1406 South Heaton Street, Knox, IN 46534

Marshall County SWCD, 2903 Gary Drive, Plymouth, IN 46563

Marshall County Plan Director, Ty Adley, 112 West Jefferson Street, Room 302, Plymouth, IN 46563

Boz Williams, 53 East Mound Street, Knox, IN 46534

Starke County Drainage Board, County Surveyor, 53 East Mound Street, Knox, IN 46534

Marshall County Drainage Board, Craig D Cultice, 112 West Jefferson Street, Room 301, Plymouth, IN 46563

DNR Law Enforcement District 1, 9822 North Turkey Road, Syracuse, IN 46567

IDNR Law Enforcement District 10, 100 West Water Street, Michigan City, IN 46360

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#### **ADDITIONAL PERMITTING AGENCIES:**

This is not a waiver of any local ordinance or other state or federal law and does not relieve the permittee of any liability for the effects which the project may have upon the safety of the life or property of others.

This does not relieve the permittee of the responsibility of obtaining permits, approvals, easements, etc. under other regulatory programs administered by, but not limited to, the U.S. Army Corps of Engineers, County Drainage Board, Indiana Department of Environmental Management and local, city, or county floodplain management, planning or zoning commissions.





Indiana Department  
of Natural Resources

Eric J. Holcomb, Governor  
Daniel W. Bortner, Director  
Division of Water  
402 W. Washington Street  
Room W264  
Indianapolis, IN 46204  
Phone (317) 232-4160  
Toll-free (877) 928-3755  
Fax (317) 233-4579  
[www.in.gov/dnr/water/](http://www.in.gov/dnr/water/)

June 10, 2021

Craig D. Cultice  
Marshall County Surveyor  
112 West Jefferson Street, Room 301  
Plymouth, Indiana 46563

Bill Crase  
Starke County Surveyor  
53 East Mound Street  
Knox, Indiana 46534

**Re: SEA #1040, Yellow River, Marshall and Starke Counties**

Dear Mr. Cultice and Mr. Crase:

This letter is written as a follow up to the December 18, 2020 field meeting associated with a proposed stabilization project along an approximately 8,000' section of The Yellow River near Culver. Additionally addressed within this letter are modified plans received on May 13, 2021 and the signed inspection report received from Craig Cultice on June 10, 2021. Meeting attendees included Paul Brayton and Ryan Mueller, Division of Water; Matt Smedley, Division of Fish and Wildlife; Jason Randolph, Office of Water Quality, Indiana Department of Environmental Management; Scott Girardi, United States Army Corps of Engineers; Scott Pelath, Executive Director, Kankakee River Basin and Yellow River Basin Development Commission; Ross St. Clair, John Richardson, and Tom Estrem, Cardno; and yourselves. A copy of the SEA 368 Inspection Report is enclosed.

IC 36-9-27-53.5 requires that prior to initiating work on a drainage project, which is subject to regulation under certain State and/or Federal environmental regulations, an on-site field review must occur. Within 30 days of the field review, the Department of Natural Resources is required to provide the county drainage board with a list of conditions that the Department of Environmental Management and the Department of Natural Resources would place on any permit for the proposed work. The Department of Natural Resources' conditions are valid for up to 2 years after the on-site field review provided a permit application is submitted within that time frame.

**This letter is not approval for construction under any State or Federal Law.**

**Description:** The Starke and Marshall County Surveyors propose grading and bank stabilization work within numerous areas of an approximately 8'000' section of the Yellow River. The project will include stabilizing the stream with floodway excavation, debris removal, constructed riffles, boulder cross vanes, j-hooks, toe wood, root wads, bank shaping and plantings. Constructed riffles will be utilized as temporary crossings and dewatering utilizing BMPs will occur. Approximately 1.5-acres of floodway forest habitat removal will occur and be restored upon completion of the work. Additionally, 500 trees and shrubs will be planted along areas of bank grading activities.

**Location:** Beginning approximately 1,500' upstream of the County Line Road crossing and extending approximately 8,000' downstream.

UTM Coordinates: Downstream North = 4569199, East = 543486  
Upstream North = 4569057, East = 545146  
(Donaldson Quadrangle Map)

Because the total stream length of The Yellow River is more than 10 miles and the proposed work is located within its regulated floodway, **a Construction in a Floodway Permit is required** from the Indiana Department of Natural Resources (IDNR) under *IC 14-28-1, Flood Control Act*.

#### DEPARTMENT OF NATURAL RESOURCES COMMENTS

A field meeting was held with you and numerous interested parties on December 18, 2020 to discuss this project. Additionally, updated plans were received on May 13, 2021 and the signed inspection report was received from Craig Cultice on June 10, 2021. The following Department of Natural Resources comments are listed as they would appear as conditions on a Construction in a Floodway Permit or in response to the Corps of Engineers as a result of a Section 404 individual review.

1. Revegetate all bare and disturbed areas, except for land that will be used for crop production in the next growing season, with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion. Low endophyte tall fescue may be used in the ditch bottom and side slopes only.
2. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Water's Environmental Unit.
3. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5" in diameter, living or dead, with loose hanging bark or with cracks, crevices, or cavities) from April 1 through September 30.
4. Do not excavate or place spoil in any riparian wetland.
5. Stabilize banks as work progresses so that no more than 200 lineal feet are left disturbed at the completion of the workday.

6. Revegetate all areas disturbed during debris and sediment removal. Permanent seed and fertilize disturbed ditch banks at the end of each day. Revegetate areas with one of the seeding mixtures or species listed in the VEGETATIVE STABILIZATION AND SEEDING PRACTICE of the INDIANA DRAINAGE HANDBOOK from the Division of Water, Indiana Department of Natural Resources (October 1996) or other species that are approved by the Department as being suitable to site and climate conditions. At the completion of the project, re-seed and fertilize areas that do not have sufficient vegetative cover to control erosion.
7. Revegetate all spoil materials deposited in areas not used for crop production.
8. Install appropriate armament below pipe outfalls.
9. A representative of the Surveyor's Office or their contractor shall inspect erosion and sediment control practices daily and repair as necessary until all construction is complete and disturbed areas are permanently stabilized.
10. Install appropriate sediment control measures to prevent the flow of sediment laden water, resulting from dredging operations, back into the watercourse.
11. All work must conform with the existing bank at the upstream and downstream limits of the project site.
12. Except for trees cabled in-place for bank protection, do not leave felled trees, brush, or other debris in the floodway.
13. Place all excavated materials at least 10 feet landward of the top of the ditch bank; spread all excavated materials evenly to a thickness not to exceed 12 inches and slope landward from the channel or completely removed from the floodway.
14. Once completed, the onsite stabilization work and plantings must be monitored for a minimum of three (3) years. Yearly monitoring reports must be submitted to the Statewide Region Environmental Biologist at the Division of Fish and Wildlife, 402 W. Washington St., RM W273, Indianapolis, IN 46204-2781 by December 31 of each year. Should monitoring indicate that excessive mortality or bank destabilization is occurring, a discussion of the likely issues causing the mortality must be addressed along with proposed implementation of the corrective actions.
15. The restoration plantings must have a minimum survival of 75% of planted material (volunteers will not be included in survival counts, only planted specimens). If the site fails to meet success criteria in any year, replanting shall occur prior to the next monitoring period, and an additional year of monitoring will be required for each year of additional plantings.
16. Plant list substitutions need to be approved by the DNR Environmental Biologist.



## DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMMENTS

The following comments are directed toward the above-referenced project and are specific to the sections of the proposed project reviewed by IDEM.

1. Submit an application to IDEM for Section 401 Water Quality Certification if the Corps requires an Individual Section 404 permit, a Regional General Permit for impacts greater than 0.1-acre, or a Nationwide Permit for which IDEM has denied Water Quality Certification. Application forms are available through the IDEM office.
2. Avoid and minimize impacts (filling or mechanical clearing) of jurisdictional wetlands to the greatest extent possible and provide acceptable compensatory mitigation for all unavoidable impacts to jurisdictional wetlands greater than 0.1 acre.
3. Field mark the area where the filling or mechanical clearing of wetlands is unavoidable.
4. Install appropriate sediment control measures to prevent the flow of sediment laden water, resulting from dredging operations, back into the watercourse.
5. Limit the physical disturbance of banks, other soils, and existing vegetation to that which is necessary to achieve the purpose of the project.
6. Deposit dredged material on upland, or old spoils that are considered upland.
7. Revegetate all bare and disturbed areas, except for land that will be used for crop production in the next growing season, with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion. Low endophyte tall fescue may be used in the ditch bottom and side slopes only.
8. Conduct logjam removal and tree preservation consistent with the practices established in the *Indiana Drainage Handbook*. The handbook was prepared in accordance with State of Indiana Public Law 329-1995 to serve as an administrative and technical guide for drainage activities within Indiana streams and ditches.
9. Spread dredged material, where possible, in a manner that will not impede overland flow to the stream. This will help eliminate adjacent berm buildup and associated "points of concentrated flow" that are erosive and require expensive land treatment practices.
10. Work from only one side of the stream, and where possible, from the side of the stream which does not have adjacent wetlands. If no wetlands are present, work from the side with the fewest trees and woody vegetation. If both banks are equally vegetated, work only from the north or east side, whichever is appropriate.
11. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish & Wildlife's Environmental Unit.

Craig D. Cultice and Bill Crase (SEA #1040)

June 10, 2021

Page 5

If you have any questions about the Department of Environmental Management's comments, please contact Jason Randolph at 317-233-0467. You can also contact the Office of Water Management through IDEM's Environmental Helpline at 1-800-451-6027.

In accordance with IC 36-9-27-53.5(g) a county surveyor or board that is aggrieved by the permit conditions disclosed under subsection (d)(3) has the right to enter into further negotiations with the Department of Natural Resources and the Department of Environmental Management in order to obtain a mutually agreeable set of permit conditions. To initiate the negotiations, please write a letter to the Director of the Division of Water addressing the aggrieved portions of the comments and conditions included in this letter.

Thank you for your cooperation in this matter. If you should have any questions or would like to discuss modifications to the above comments, please contact me at our toll-free number, 1-877-WATER55 (1-877-928-3755) or at (317) 234-1121.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Bales', written over the word 'Sincerely,'.

Adam M. Bales  
Engineering Section Manager  
Division of Water

AMB/MBS

pc: Jason Randolph, Office of Water Quality, IDEM

Scott Girardi, U.S. Army Corps of Engineers, Detroit District, Michiana Field Office

Elizabeth McCloskey, U.S. Fish and Wildlife Service

Ross St. Clair, Cardno

Scott Pelath, Executive Director, Kankakee River Basin and Yellow River Basin Development Commission

Enclosures: SEA 368 Inspection Report

**Indiana Department of Natural Resources  
Division of Law Enforcement**

Law Enforcement Memo

SEA - 1040

Date: 06/12/21

District: 10

Conservation Officer: Lt. Shawn Brown

Findings: ||

☐

**Denial Recommendation:**

☒

**Approval Recommendation if the following conditions are met:**

☒

**Construction in floodway**

☒

any equipment and/or cables placed on a public waterway must be clearly marked with navigation buoys described in 312 IAC 5-4 in a manner that would be visible to any watercraft operator in the area

☒

any equipment and/or cables left in a public waterway in times of limited visibility must, in addition to the requirement listed above, be marked with flashing amber warning lights and reflective signage warning watercraft operators of the hazards

☒

any construction equipment left in the river overnight must be illuminated

☒

warning signs shall be placed at locations upstream and downstream of the project site and be visible to any watercraft entering the construction area

☒

maintain a passageway for kayak and canoe traffic during construction; provide a temporary portage off the main channel if the main channel is blocked at any point during construction; appropriate signs should be installed warning boaters of the bridge closing and directing to the temporary portage

☐

ensure that the public access remains open throughout construction and completion of the project

☐

**Navigational aid / Water recreation structure**

☐

no watercraft shall be moored on the end of a pier, either temporarily or permanently

☐

buoy is placed in excess of 150' from shoreline

☐

piers must be placed no closer than 10 feet from the riparian property lines

☐

place the attractors well below the waterline a minimum depth of 6-7 feet between the surface of the lake and the top of the attractor, so as to not obstruct with the travel of watercraft

☐

the proposed dry hydrant must be in a minimum of 6 feet of water after it extends past 150 feet from the nearest shoreline

☐

Other: