

**SPECIFICATIONS FOR
Sanitary Sewer Improvements for Un-Served Areas**

**for
City of Greenville
Bond County, Illinois**

**USDA RD Grant No. _____
USDA RD Loan No. _____**

MAYOR

Alan Gaffner

CITY COUNCIL

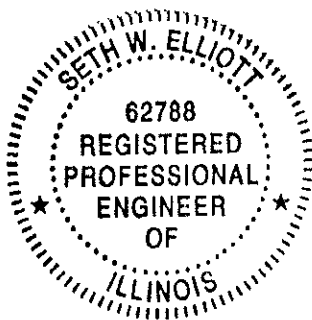
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Seth W. Elliott

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Expires: November 30, 2017

Date: May, 2017
File: 40027-500

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Expires April 30, 2019

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| Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions | <u>RD AD 1048</u> |
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* Forms and RUS Bulletins may be found at <http://www.usda.gov/rus/water/ees/englib/index.htm>

* Illinois Engineering Documents may be found at <http://www.rurdev.usda.gov/il/eng.htm>

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**City of Greenville
Greenville, IL
Sanitary Sewer Improvements for Un-Served Areas**

ADVERTISEMENT FOR BIDS

Sealed Bids for the construction of the Sanitary Sewer Improvements for Un-Served Areas will be received, by David Willey City Manager City of Greenville, at the office of the 404 S. Third Street, Greenville, IL, 62246, until 2:00 p.m. local time on Thursday June 29, 2017, at which time the Bids received will be publicly opened and read. The Project consists of constructing 12,500 feet of 8" PVC Sewer, 7,600 feet of 12" PVC Sewer, 3,300 feet of 15" PVC Sewer, 6,400 feet of 6" PVC Sewer Service Line, Decommission 65 Septic Systems, Install 13 Individual Grinder Pump Systems, 3,000 feet of 1.5" to 3" PE/PVC Force Main, and Related Appurtenances. Alternate Bid an additional Install of 12 Individual Grinder Pump Systems, 2,200 feet of 1.5" to 3" PE/PVC Force Main, and 3,000 feet of 8" PVC Sewer.

A Pre-Bid meeting will be held at 10:00 a.m. on Thursday June 15, 2017 at the City Hall.

Bids will be received for a single prime Contract. Bids shall be on a lump sum and unit price basis, with additive alternate bid items as indicated in the Bid Form.

The Issuing Office for the Bidding Documents is: Heneghan and Associates, P.C. 1004 State Highway 16, Jerseyville, IL 62052, contact Seth Elliott – 618-498-6418 – swelliott@heneghanassoc.com. Prospective Bidders may examine the Bidding Documents at the Issuing Office on Mondays through Fridays between the hours of 8:00am and 4:30pm, and may obtain copies of the Bidding Documents from the Issuing Office as described below.

Bidding Documents also may be examined at Southern Illinois Builders Association, 1468 Green Mount Road, O'Fallon, Illinois 62269; Dodge/Agc Plan Room, 6330 Knox Industrial Drive, St. Louis, Missouri 63139 or online at www.dodge.construction.com; online at www.questcdn.com under Login using QuestCDN #5167668; and the office of the Engineer, Heneghan and Associates, P.C. (see above) or online at <http://haengr.com/bid-documents/>.

Bidding Documents may be obtained from the Issuing Office during the hours indicated above. Bidding Documents are available at <http://haengr.com/bid-documents/> (as portable document format (PDF) files) for a non-refundable charge of \$ 10.00. Alternatively, printed Bidding Documents may be obtained from the Issuing Office either via in-person pick-up or via mail, upon Issuing Office's receipt of payment for the Bidding Documents. The non-refundable cost of printed Bidding Documents is \$ 180.00 per set, payable to "Heneghan and Associates, P.C.", plus a \$20.00 non-refundable shipping charge. Upon Issuing Office's receipt of payment, printed Bidding Documents will be sent via the prospective Bidder's delivery method of choice. The date that the Bidding Documents are transmitted by the Issuing Office will be considered the prospective Bidder's date of receipt of the Bidding Documents. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including Addenda if any, obtained from sources other than the Issuing Office.

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INSTRUCTIONS TO BIDDERS

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ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 2 days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. Evidence of Bidder's authority to do business in the state where the Project is located.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

- 4.01 *Site and Other Areas*
- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.
- 4.02 *Existing Site Conditions*
- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
1. Subsurface and Physical Conditions; Hazardous Environmental Conditions: None Available.
 2. Geotechnical Baseline Report: No Geotechnical Baseline Report is Available.

- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

- 5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 A pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed, and completed and ready for final payment, are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

- 11.01 The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids in the case of a proposed substitute and 5 days prior in the case of a proposed "or-equal." Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. The

burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner. Substitutes and "or-equal" materials and equipment may be proposed by Contractor in accordance with Paragraphs 7.04 and 7.05 of the General Conditions after the Effective Date of the Contract.

- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.
- 11.03 If an award is made, Contractor shall be allowed to submit proposed substitutes and "or-equals" in accordance with the General Conditions.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 If required by the bid documents. The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work: **None Required.**

If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.
- 12.05 Contractor shall not be required to employ any Subcontractor, Suppliers, individuals, or entity against whom Contractor has reasonable objection.
- 12.06 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SC 7.06.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
 - A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership's address for receiving notices shall be shown.
- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm's address for receiving notices shall be shown.
- 13.05 A Bid by an individual shall show the Bidder's name and address for receiving notices.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture's address for receiving notices shall be shown.
- 13.07 All names shall be printed in ink below the signatures.
- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

14.01 Base Bid with Alternates

- A. Bidders shall submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.
- B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form.

14.02 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 Allowances

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to David Willey.
- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 19.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
 - B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. To determine the Bid prices for purposes of comparison, Owner shall announce to all bidders a “Base Bid plus alternates” budget after receiving all Bids, but prior to opening them. For comparison purposes alternates will be accepted, following the order of priority established in the Bid Form, until doing so would cause the budget to be exceeded. After determination of the Successful Bidder based on this comparative process and on the responsiveness, responsibility, and other factors set forth in these Instructions, the award may be made to said Successful Bidder on its base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.
- 19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

- 20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – SALES AND USE TAXES

- 22.01 Owner is exempt from Illinois state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid. Refer to Paragraph SC-7.09 of the Supplementary Conditions for additional information.

ARTICLE 23 – CONTRACTS TO BE ASSIGNED

- 23.01 Not Applicable.

ARTICLE 24 – WAGE RATE REQUIREMENTS

- 24.01 If the contract price is in excess of \$100,000, provisions of the Contract Work Hours and Safety Standards Act at 29 CFR 5.5(b) apply.

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BID FORM

City of Greenville

Sanitary Sewer Improvements for Un-Served Areas

40027-500

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

David Willey, City Manager

City of Greenville

404 S. Third Street

Greenville, IL 62246

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| <u>Addendum No.</u> | <u>Addendum, Date</u> |
|---------------------|-----------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding

Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

5.02

| ITEMS - BASE BID "A" | | QUANTITY | UNIT | UNIT PRICE | ESTIMATED TOTAL PRICE |
|----------------------|--|----------|------|------------|-----------------------|
| 1 | 8" dia. PVC Pipe, SDR 26 (4'-10') | 9,236 | LF | \$ | \$ |
| 2 | 8" dia. PVC Pipe, SDR 26 (10'-15') | 3,730 | LF | \$ | \$ |
| 3 | 8" dia. PVC Pipe, SDR 26 (15'-20') | 371 | LF | \$ | \$ |
| 4 | 8" dia. PVC Pipe, SDR 26 (20'-25') | 96 | LF | \$ | \$ |
| 5 | 8" dia. DI Pipe, Class 350 | 80 | LF | \$ | \$ |
| 6 | 8" dia. Restrained Joint PVC Pipe, SDR 21 in Casing | 39 | LF | \$ | \$ |
| 7 | 12" dia. PVC Pipe, SDR 26 (4'-10') | 5,057 | LF | \$ | \$ |
| 8 | 12" dia. PVC Pipe, SDR 26 (10'-15') | 1,977 | LF | \$ | \$ |
| 9 | 12" dia. PVC Pipe, SDR 26 (15'-20') | 280 | LF | \$ | \$ |
| 10 | 12" dia. PVC Pipe, SDR 26 (20'-25') | 40 | LF | \$ | \$ |
| 10 | 12" dia. Restrained Joint PVC Pipe, SDR 21 in Casing | 255 | LF | \$ | \$ |
| 11 | 15" dia. PVC Pipe, SDR 26 (4'-10') | 1,400 | LF | \$ | \$ |
| 12 | 15" dia. PVC Pipe, SDR 26 (10'-15') | 1,378 | LF | \$ | \$ |
| 13 | 15" dia. PVC Pipe, SDR 26 (15'-20') | 480 | LF | \$ | \$ |
| 14 | 1.5" dia. PE Pipe - Forcemain | 3,261 | LF | \$ | \$ |
| 15 | 2" dia. PE Pipe - Forcemain | 1,760 | LF | \$ | \$ |
| 16 | 3" dia. PVC Pipe, CL 160, SDR 26 - Forcemain | 1,560 | LF | \$ | \$ |
| 17 | 6" Service Lateral | 7,255 | LF | \$ | \$ |
| 18 | Decommission Existing Septic Tanks | 84 | EACH | \$ | \$ |
| 19 | Cleanouts on Gravity Lines | 122 | EACH | \$ | \$ |
| 20 | Service Connection to Gravity/Force Main | 84 | EACH | \$ | \$ |

| ITEMS - BASE BID "A" | | QUANTITY | UNIT | UNIT PRICE | ESTIMATED TOTAL PRICE |
|----------------------|---|----------|-------|------------|-----------------------|
| 21 | Connect to Pipe Stub | 1 | EACH | \$ | \$ |
| 22 | Connect to Existing Manhole | 10 | EACH | \$ | \$ |
| 23 | Personal Grinder Pump Station | 27 | EACH | \$ | \$ |
| 24 | Inside Customer House to Alarm Control Panel | 27 | EACH | \$ | \$ |
| 25 | 4' dia. Manhole 4' deep | 86 | EACH | \$ | \$ |
| 26 | 4' dia. Drop Manhole 4' deep | 1 | EACH | \$ | \$ |
| 27 | 4' dia. Set-Over Manhole | 3 | EACH | \$ | \$ |
| 28 | Additional Depth Manhole | 494 | VF | \$ | \$ |
| 29 | Bore 24" Casing for Sewer Main on Grade | 150 | LF | \$ | \$ |
| 30 | Bore 6" Gravity Sewer Lateral on Grade | 168 | LF | \$ | \$ |
| 31 | Bore 8" Gravity Sewer Main on Grade | 100 | LF | \$ | \$ |
| 32 | Bore 12" Gravity Sewer Main on Grade | 476 | LF | \$ | \$ |
| 33 | Open Cut 24" Steel Casing for Sewer Main on Grade | 81 | LF | \$ | \$ |
| 34 | Air Release Valve | 3 | EACH | \$ | \$ |
| 35 | Force Main Flush Structure/Cleanout | 5 | EACH | \$ | \$ |
| 36 | Sewer Line Testing | 24,499 | LF | \$ | \$ |
| 37 | Force Main Testing | 6,784 | LF | \$ | \$ |
| 38 | Vacuum Testing - Manhole | 90 | EACH | \$ | \$ |
| 39 | Tree Removal 6" to 15" | 3 | EACH | \$ | \$ |
| 40 | Tree Removal over 15" | 12 | EACH | \$ | \$ |
| 41 | Compacted Rock Backfill | 5,421 | CU YD | \$ | \$ |
| 42 | HMA 6" | 1,167 | SQ YD | \$ | \$ |

| ITEMS - BASE BID "A" | | QUANTITY | UNIT | UNIT PRICE | ESTIMATED TOTAL PRICE |
|----------------------|--|----------|-------|------------|-----------------------|
| 43 | PCC 6" | 173 | SQ YD | \$ | \$ |
| 44 | Rip Rap Removal and Replacement | 42 | SQ YD | \$ | \$ |
| 45 | Curb Removal and Replacement | 48 | LF | \$ | \$ |
| 46 | Culvert Removal and Replacement | 100 | LF | \$ | \$ |
| 47 | Retain Power Poles | 8 | EACH | \$ | \$ |
| 48 | Power Company to Remove and Replace Guy Wire | 1 | EACH | \$ | \$ |
| 49 | Sign Removal and Replacement | 3 | EACH | \$ | \$ |
| 50 | Fence Removal and Replacement | 400 | LF | \$ | \$ |
| 51 | Mailbox Relocation | 2 | EACH | \$ | \$ |
| 52 | Field Drain Repair | 40 | EACH | \$ | \$ |
| 53 | Directional Bore 8" RJ PVC | 100 | LF | \$ | \$ |
| 54 | Directional Bore 1-4" Forcemain | 1,432 | LF | \$ | \$ |
| 55 | TSM | 30,555 | LF | \$ | \$ |
| 56 | Straw Wattles | 6,696 | LF | \$ | \$ |
| 57 | Tri Silt Dike | 9 | EACH | \$ | \$ |
| 58 | Geo Ridge | 19 | EACH | \$ | \$ |
| 59 | Inlet Protection | 9 | EACH | \$ | \$ |
| 60 | Permanent Sodding | 324,240 | SQ FT | \$ | \$ |
| 61 | Permanent Seeding | 138,360 | SQ FT | \$ | \$ |
| 62 | Sewer Main Foundation | 1,000 | CU YD | \$ | \$ |
| | Total | | | \$ | |

Dollars

(In Words)

BID SCHEDULE "ALTERNATE BID A"

The OWNER is considering an extension along College and Dewey as shown on sheets 8-1 to 8-10 of the project plans. The CONTRACTOR shall provide a unit bid price for the following alternate line items. The OWNER may select the low bidder based on the base bid or a combination of the base bid and alternate bids.

| ITEMS - ALTERNATE BID "A" | | QUANTITY | UNIT | UNIT PRICE | ESTIMATED TOTAL PRICE |
|---------------------------|--|----------|-------|------------|-----------------------|
| A-1 | 8" dia. PVC Pipe, SDR 26 (4'-10') | 1,306 | LF | \$ | \$ |
| A-2 | 8" dia. PVC Pipe, SDR 26 (10'-15') | 1,602 | LF | \$ | \$ |
| A-3 | 6" Service Lateral | 956 | LF | \$ | \$ |
| A-4 | Service Lateral In Casing on Grade | 140 | LF | \$ | \$ |
| A-5 | Decommission Existing Septic Tanks | 14 | EACH | \$ | \$ |
| A-6 | Cleanouts on Gravity Lines | 18 | EACH | \$ | \$ |
| A-7 | Service Connection to Gravity/Force Main | 14 | EACH | \$ | \$ |
| A-8 | Connect to Existing Manhole | 1 | EACH | \$ | \$ |
| A-9 | 4' dia. Manhole 4' deep | 11 | EACH | \$ | \$ |
| A-10 | Additional Depth Manhole | 47 | VF | \$ | \$ |
| A-11 | Bore 12" Casing for Service Lateral on Grade | 100 | LF | \$ | \$ |
| A-12 | Sewer Line Testing | 2,908 | LF | \$ | \$ |
| A-13 | Vacuum Testing - Manhole | 11 | EACH | \$ | \$ |
| A-14 | Tree Removal 6" to 15" Diameter | 1 | EACH | \$ | \$ |
| A-15 | Tree Removal over 15" Diameter | 2 | EACH | \$ | \$ |
| A-16 | Compacted Rock Backfill | 1,050 | CU YD | \$ | \$ |
| A-17 | HMA 6" | 247 | SQ YD | \$ | \$ |
| A-18 | PCC 6" | 20 | SQ YD | \$ | \$ |

| ITEMS - ALTERNATE BID "A" | | QUANTITY | UNIT | UNIT PRICE | ESTIMATED TOTAL PRICE |
|---------------------------------------|---------------------------------|----------|-------|------------|-----------------------|
| A-19 | Curb Removal and Replacement | 8 | LF | \$ | \$ |
| A-20 | Culvert Removal and Replacement | 81 | LF | \$ | \$ |
| A-21 | Mailbox Relocation | 2 | EACH | \$ | \$ |
| A-22 | TSM | 2,181 | LF | \$ | \$ |
| A-23 | Straw Wattles | 740 | LF | \$ | \$ |
| A-24 | Tri Silt Dike | 4 | EACH | \$ | \$ |
| A-25 | Geo Ridge | 6 | EACH | \$ | \$ |
| A-26 | Permanent Sodding | 19,120 | SQ FT | \$ | \$ |
| A-27 | Permanent Seeding | 20,540 | SQ FT | \$ | \$ |
| TOTAL ALTERNATE BID "A" AMOUNT | | | | \$ | |

BID SCHEDULE "ALTERNATE BID B"

The OWNER is considering sealing all new manholes installed under this contract(Line B-1). The OWNER is also considering paying for exploratory digging of private septic systems before installation of the gravity mains. The CONTRACTOR shall provide a unit bid price for the following alternate line items The OWNER may select the low bidder based on the base bid or a combination of the base bid and alternate bids.

| ITEMS - ALTERNATE BID "B" | | QUANTITY | UNIT | UNIT PRICE | ESTIMATED TOTAL PRICE |
|---------------------------|---|----------|------|------------|-----------------------|
| B-1 | Sealing New Manholes | 838 | VF | \$ | \$ |
| B-2 | Exploratory Digging of Septic Systems before installation of Gravity Main | 84 | EACH | \$ | \$ |

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.03 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. List of Project References;
 - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - F. Contractor's License No.: **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - G. Required Bidder Qualification Statement with supporting data; and
 - H. If bid amount exceeds \$10,000, signed Compliance Statement (RD400-6). Refer to specific equal opportunity requirements set forth in the Supplemental General Conditions;
 - I. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions (AD-1048);
 - J. If Bid amount exceeds \$100,000, signed RD Instructions 1940-Q, Exhibit A-1, Certification for Contracts, Grants, and Loans.

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By: _____

[Signature] _____

[Printed name] _____

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____

(where applicable)

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BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

City of Greenville
404 S. Third Street, Greenville, IL, 62246

BID

Bid Due Date:

Description (*Project Name— Include Location*): Sanitary Sewer Improvements for Un-Served Areas The Project consists of constructing 12,500 feet of 8" PVC Sewer, 7,600 feet of 12" PVC Sewer, 3,300 feet of 15" PVC Sewer, 6,400 feet of 6" PVC Sewer Service Line, Decommission 65 Septic Systems, Install 13 Individual Grinder Pump Systems, 3,000 feet of 1.5" to 3" PE/PVC Force Main, and Related Appurtenances. Alternate Bid an additional Install of 12 Individual Grinder Pump Systems, 2,200 feet of 1.5" to 3" PE/PVC Force Main, and 3,000 feet of 8" PVC Sewer.

BOND

Bond Number:

Date:

Penal sum _____ \$ _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

Bidder's Name and Corporate Seal

(Seal)

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT
PERMITTED BY LAWS AND REGULATIONS

1. SUBMITTED BY:

Official Name of Firm:

Address:

2. SUBMITTED TO:

3. SUBMITTED FOR:

Owner:

Project Name:

TYPE OF WORK:

4. CONTRACTOR'S CONTACT INFORMATION

Contact Person:

Title:

Phone:

Email:

5. AFFILIATED COMPANIES:

Name: _____

Address: _____

6. TYPE OF ORGANIZATION:

☐ SOLE PROPRIETORSHIP

Name of Owner: _____

Doing Business As: _____

Date of Organization: _____

☐ PARTNERSHIP

Date of Organization: _____

Type of Partnership: _____

Name of General Partner(s): _____

☐ CORPORATION

State of Organization: _____

Date of Organization: _____

Executive Officers:

- President: _____

- Vice President(s): _____

- Treasurer: _____

- Secretary: _____

☐ LIMITED LIABILITY COMPANY

State of Organization:

Date of Organization:

Members:

☐ JOINT VENTURE

Sate of Organization:

Date of Organization:

Form of Organization:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

7. LICENSING

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: _____

Minority Business Enterprise: _____

Woman Owned Enterprise: _____

Small Business Enterprise: _____

Other (_____): _____

9. BONDING INFORMATION

Bonding Company: _____

Address: _____

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

EJCDC® C-451, Qualifications Statement.

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and American Society of Civil Engineers. All rights reserved.

10. FINANCIAL INFORMATION

Financial Institution: _____

Address: _____

Account Manager: _____

Phone: _____

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE
LAST 3 YEARS

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. SAFETY PROGRAM:

Name of Contractor's Safety Officer: _____

Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

| | | | |
|------|-------|-----|-------|
| YEAR | _____ | EMR | _____ |
| YEAR | _____ | EMR | _____ |
| YEAR | _____ | EMR | _____ |
| YEAR | _____ | EMR | _____ |
| YEAR | _____ | EMR | _____ |

Total Recordable Frequency Rate (TRFR) for the last 5 years:

| | | | |
|------|-------|------|-------|
| YEAR | _____ | TRFR | _____ |
| YEAR | _____ | TRFR | _____ |
| YEAR | _____ | TRFR | _____ |
| YEAR | _____ | TRFR | _____ |
| YEAR | _____ | TRFR | _____ |

Total number of man-hours worked for the last 5 Years:

| | | | |
|------|-------|---------------------------|-------|
| YEAR | _____ | TOTAL NUMBER OF MAN-HOURS | _____ |
| YEAR | _____ | TOTAL NUMBER OF MAN-HOURS | _____ |
| YEAR | _____ | TOTAL NUMBER OF MAN-HOURS | _____ |
| YEAR | _____ | TOTAL NUMBER OF MAN-HOURS | _____ |
| YEAR | _____ | TOTAL NUMBER OF MAN-HOURS | _____ |

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

| | | | |
|------|-------|------|-------|
| YEAR | _____ | DART | _____ |
| YEAR | _____ | DART | _____ |
| YEAR | _____ | DART | _____ |
| YEAR | _____ | DART | _____ |
| YEAR | _____ | DART | _____ |

13. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HERewith, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: _____

BY: _____

TITLE: _____

DATED: _____

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF _____, 20__

NOTARY PUBLIC - STATE OF _____

MY COMMISSION EXPIRES: _____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

SCHEDULE A

CURRENT EXPERIENCE

| Project Name | Owner's Contact Person | Design Engineer | Contract Date | Type of Work | Status | Cost of Work |
|--------------|---------------------------------|---------------------------------|---------------|--------------|--------|--------------|
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

| Project Name | Owner's Contact Person | Design Engineer | Contract Date | Type of Work | Status | Cost of Work |
|--------------|---------------------------------|---------------------------------|---------------|--------------|--------|--------------|
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

| Project Name | Owner's Contact Person | Design Engineer | Contract Date | Type of Work | Status | Cost of Work |
|--------------|---------------------------------|---------------------------------|---------------|--------------|--------|--------------|
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |
| | Name: Address: Telephone: | Name: Company: Telephone: | | | | |

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

[illegible]

CERTIFICATION FOR CONTRACTS, GRANTS, AND LOANS

The undersigned certifies, to the best of his or her knowledge and belief, that:

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

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

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients shall certify and disclose accordingly.

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

(name)

(date)

(title)

o0o

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USDA

Form RD 400-6

(Rev. 4-96)

COMPLIANCE STATEMENT

This statement relates to a proposed contract with City of Greenville,

(Name of borrower or grantee)

who expects to finance the contract with assistance from either the Rural Housing Service (RHS), Rural Business-Cooperative Service (RBS), or the Rural Utilities Service (RUS) or their successor agencies, United States Department of Agriculture (whether by a loan, grant, loan insurance, guarantee, or other form of financial assistance). I am the undersigned bidder or prospective contractor. I represent that:

1. I ☐ have, ☐ have not, participated in a previous contract or subcontract subject to Executive Order 11246 (regarding equal employment opportunity) or a preceding similar Executive Order.
2. If I have participated in such a contract or subcontract, I ☐ have, ☐ have not, filed all compliance reports that I have been required to file in connection with the contract or subcontract.

If the proposed contract is for \$50,000 or more and I have 50 or more employees, I also represent that:

3. I ☐ have, ☐ have not previously had contracts subject to the written affirmative action program requirements of the Secretary of Labor.
4. If I have participated in such a contract or subcontract, I ☐ have, ☐ have not, developed and placed on file at each establishment affirmative action programs as required by the rules and regulations of the Secretary of Labor.

I understand that if I have failed to file any compliance reports that have been required of me, I am not eligible and will not be eligible to have my bid considered or to enter into the proposed contract unless and until I make an arrangement regarding such reports that is satisfactory to either the RHS, RBS or RUS, or to the office where the reports are required to be filed.

I also certify that I do not maintain or provide for my employees any segregated facilities at any of my establishments, and that I do not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I certify further that I will not maintain or provide for my employees any segregated facilities at any of my establishments, and that I will not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I agree that a breach of this certification is a violation of the Equal Opportunity clause in my contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. I further agree that (except where I have obtained identical certifications for proposed subcontractors for specific time periods) I will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that I will retain such certifications in my files; and that I will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods): (**See Reverse**).

RD 400-6 (Rev. 4-96)

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR
CERTIFICATIONS OF NON-SEGREGATED FACILITIES**

A certification of Nonsegregated Facilities, as required by the May 9, 1967, order (32F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Date _____

Signature of Bidder or Prospective Contractor

Address (including Zip Code)

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____)

County of _____) ss.

_____, being first duly sworn, deposes and says that:

1. He is _____ of _____ the Bidder that has submitted the attached Bid;
2. He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
3. Such Bid is genuine and is not a collusive or sham Bid;
4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the **City of Greenville** (Local Public Agency) or any person interested in the proposed Contract; and
5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees or parties in interest, including this affiant.

(Signed) _____

(Name & Title)

Subscribed and sworn to before me this

_____ day of _____, 20____.

(Notary Public)

My Commission Expires: _____

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NOTICE OF AWARD

Date of Issuance:

Owner: City of Greenville Owner's Contract No.:
Engineer: Heneghan and Associates, P.C. Engineer's Project No.: 40027-500
Project: Sanitary Sewer Improvements for Un-Served Areas Contract Name:

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated _____ for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Sanitary Sewer Improvements for Un-Served Areas - The Project consists of constructing 12,500 feet of 8" PVC Sewer, 7,600 feet of 12" PVC Sewer, 3,300 feet of 15" PVC Sewer, 6,400 feet of 6" PVC Sewer Service Line, Decommission 65 Septic Systems, Install 13 Individual Grinder Pump Systems, 3,000 feet of 1.5" to 3" PE/PVC Force Main, and Related Appurtenances. Alternate Bid an additional Install of 12 Individual Grinder Pump Systems, 2,200 feet of 1.5" to 3" PE/PVC Force Main, and 3,000 feet of 8" PVC Sewer.

The Contract Price of the awarded Contract is: \$ _____ [note if subject to unit prices, or cost-plus]

Five (5) unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

4 sets of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner Five (5) counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security performance and payment bonds and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Engineer

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THIS AGREEMENT is by and between City of Greenville ("Owner") and
("Contractor").

EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price).
Copyright © 2013 National Society of Professional Engineers, American Council of Engineering Companies,
and American Society of Civil Engineers. All rights reserved. Page 1 of 7

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. Substantial Completion: Contractor shall pay Owner \$800.00 or actual damages whichever is greater for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$800.00 or actual damages whichever is greater for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.
 4. ~~Milestones: Contractor shall pay Owner \$800.00 or actual damages whichever is greater for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved.~~

4.04 *Special Damages*

[Deleted]

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the last tuesday of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the

requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 90 percent of Work completed (with the balance being retainage); If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
 - b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion of the entire construction to be provided under the Contract Documents, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the maximum legal rate.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the ~~Supplementary~~ General Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental

Conditions, if any, at or adjacent to the Site that have been identified in the ~~Supplementary General~~ Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; and the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to , inclusive).
 - 2. Performance bond (pages to , inclusive).
 - 3. Payment bond (pages to , inclusive).
 - 4. Other bonds.
 - a. (pages to , inclusive).
 - 5. General Conditions (pages to , inclusive).
 - ~~6. Supplementary Conditions (pages to , inclusive).~~
 - ~~7.6.~~ Specifications as listed in the table of contents of the Project Manual.
 - ~~8.7.~~ Drawings (not attached but incorporated by reference) consisting of sheets with each sheet bearing the following general title: [or] the Drawings listed on the attached sheet index.
 - ~~9.8.~~ Addenda (numbers to , inclusive).
 - ~~10.9.~~ Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages to , inclusive).

~~11-10.~~ 10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:

- a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions ~~and the Supplementary Conditions.~~

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Intentionally Blank

CERTIFICATE OF OWNER'S ATTORNEY AND AGENCY CONCURRENCE

CERTIFICATE OF OWNER'S ATTORNEY

PROJECT NAME: Sanitary Sewer Improvements for Un-Served
Areas

CONTRACTOR NAME: _____

I, the undersigned, _____, the duly authorized and acting legal representative of _____, do hereby certify as follows: I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Name Date

AGENCY CONCURRENCE

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

Agency Representative Date

Name

Intentionally Blank

ENGINEER'S CERTIFICATION OF FINAL PLANS AND SPECIFICATIONS

PROJECT NAME: _____ Sanitary Sewer Improvements for Un-Served
Areas _____

The final Drawings and Specifications, other assembled Construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables, comply with all requirements of the U.S. Department of Agriculture, Rural Utilities Service, to the best of my knowledge and professional judgment.

If the Engineers Joint Contract Documents Committee (EJCDC) documents have been used, all modifications required by RUS Bulletin 1780-26 have been made in accordance the terms of the license agreement, which states in part that the Engineer "must plainly show all changes to the Standard EJCDC Text, using 'Track Changes' (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions." Such other means may include attachments indicating changes (e.g. Supplementary Conditions modifying the General Conditions).

Seth W. Elliott 4-27-17
Engineer Date

Seth W. Elliott Project Manager
Name and Title

Intentionally Blank

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

City of Greenville

404 S. Third Street, Greenville, IL, 62246

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*: The Project consists of constructing 12,500 feet of 8" PVC Sewer, 7,600 feet of 12" PVC Sewer, 3,300 feet of 15" PVC Sewer, 6,400 feet of 6" PVC Sewer Service Line, Decommission 65 Septic Systems, Install 13 Individual Grinder Pump Systems, 3,000 feet of 1.5" to 3" PE/PVC Force Main, and Related Appurtenances. Alternate Bid an additional Install of 12 Individual Grinder Pump Systems, 2,200 feet of 1.5" to 3" PE/PVC Force Main, and 3,000 feet of 8" PVC Sewer.

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

By: _____
Signature

Print Name

Title

Attest: _____
Signature

Title

Surety's Name and Corporate Seal

By: _____
Signature *(attach power of attorney)*

Print Name

Title

Attest: _____
Signature

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

City of Greenville

404 S. Third Street, Greenville, IL, 62246

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*: The Project consists of constructing 12,500 feet of 8" PVC Sewer, 7,600 feet of 12" PVC Sewer, 3,300 feet of 15" PVC Sewer, 6,400 feet of 6" PVC Sewer Service Line, Decommission 65 Septic Systems, Install 13 Individual Grinder Pump Systems, 3,000 feet of 1.5" to 3" PE/PVC Force Main, and Related Appurtenances. Alternate Bid an additional Install of 12 Individual Grinder Pump Systems, 2,200 feet of 1.5" to 3" PE/PVC Force Main, and 3,000 feet of 8" PVC Sewer.

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

(seal)

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
- 16.1 **Claim:** A written statement by the Claimant including at a minimum:
1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:

U.S. DEPARTMENT OF AGRICULTURE

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

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

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

Organization Name

PR/Award Number or Project Name

Name(s) and Title(s) of Authorized Representative(s)

Signature(s)

Date

Form AD-1048 (1/92)

Instructions for Certification

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

NOTICE TO PROCEED

| | | | |
|-------------|---|-----------------------------|-----------|
| Owner: | City of Greenville | Owner's Contract No.: | |
| Contractor: | | Contractor's Project No.: | |
| Engineer: | Heneghan and Associates, P.C. | Engineer's Project No.: | 40027-500 |
| Project: | Sanitary Sewer Improvements for Un-Served Areas | | |
| | | Contract Name: | |
| | | Effective Date of Contract: | |

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [_____, 20__]. *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is _____, and the date of readiness for final payment is _____] **or** [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before starting any Work at the Site, Contractor must comply with the following:
[Note any access limitations, security procedures, or other restrictions]

Owner:

Authorized Signature

By:

Title:

Date Issued:

Copy: Engineer

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract. The Change Order form to be used on this Project is EJCDC C-941. Agency approval is required before Change Orders are effective.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, ~~Supplementary Conditions~~, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—~~The part of the Contract that amends or supplements these General Conditions.~~ N/A
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in these Standard General Conditions~~in the Supplementary Conditions~~, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer,

ordering an addition, deletion, or revision in the Work. A Work Change Directive cannot change Contract Price or Contract Times without a subsequent Change Order.

49. Abnormal Weather Conditions—Conditions of extreme or unusual weather for a given region, elevation, or season as determined by Engineer. Extreme or unusual weather that is typical for a given region, elevation, or season should not be considered Abnormal Weather Conditions.
50. Agency—The Project is financed in whole or in part by USDA Rural Utilities Service pursuant to the Consolidated Farm and Rural Development Act (7 USC Section 1921 et seq.). The Rural Utilities Service programs are administered through the USDA Rural Development offices; therefore, the Agency for these documents is USDA Rural Development.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
 1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
 1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
 1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or

some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Standard General Conditions~~Supplementary Conditions~~ or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Standard General Conditions~~Supplementary Conditions~~ or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor ~~four~~five ~~printed~~—copies of the Contract Documents(including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the

performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. ~~In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.~~

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer

whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. ~~abnormal weather conditions;~~ Abnormal Weather Conditions;
 - 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 - 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with

reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers,

directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. No Reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to the Owner.
- ~~B.— *Reports and Drawings:* The Supplementary Conditions identify:~~
 - ~~1.— those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;~~
 - ~~2.— those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and~~
 - ~~3.— Technical Data contained in such reports and drawings.~~
- ~~C.— *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:~~
 - ~~1.— the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or~~

- ~~2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or~~
- ~~any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.~~
- ~~The following reports of explorations and tests of subsurface conditions at or adjacent to the Site are known to Owner:~~
- ~~Report dated [May 21, 2013, prepared by Aye and Bea, Consulting Engineers, Philadelphia, Pa., entitled: "Results of Investigation of Subsoil Conditions and Professional Recommendations for Foundations of Iron Foundry at South and Front Streets, Pembrig, NJ", consisting of 42 pages.] The Technical Data contained in such report upon whose accuracy Contractor may rely are [here indicate any such Technical Data, or state "none."] [or] [those indicated in the definition of Technical Data in the General Conditions.]~~
- ~~Report dated [May 2, 2000, prepared by Ecks, Wye and Tsze, Inc., Baltimore, Md., entitled: "Tests of Water Quality in Mixer River at Pembrig, NJ", consisting of 26 pages.] The Technical Data contained in such report upon whose accuracy Contractor may rely are [here indicate any such Technical Data, or state "none."] [or] [as indicated in the definition of Technical Data in the General Conditions.]~~
- ~~The following drawings of physical conditions relating to existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities) are known to Owner:~~
- ~~Drawings dated [March 2, 2000, of Route 24A Overpass Abutment, prepared by Dea & Associates, Inc., Wilmington, Del., entitled: "Record Drawings: Route No. 24A Overpass Abutment", consisting of 12 sheets numbered 001 to 012, inclusive.] None of the contents of such drawings is Technical Data on whose accuracy Contractor may~~
- ~~B. may examine copies of reports and drawings identified immediately above that were not included with the Bidding Documents at [redacted] [insert location] during regular business hours, or may request copies from Engineer, at the cost of reproduction~~

5.04 Differing Subsurface or Physical Conditions

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform

any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
 - 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
 - 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Standard General Conditions~~Supplementary Conditions~~:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments:*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. Reports and Drawings: No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

B. Reliance by Contractor on Technical Data Authorized: Not Used.

~~A. Reports and Drawings: The Supplementary Conditions identify:~~

- ~~1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and~~

~~— Technical Data contained in such reports and drawings.~~

~~— The following reports regarding Hazardous Environmental Conditions at the Site are known to Owner:~~

~~— Report dated December 10, 2012, prepared by Eph Environmental Consultants, Princeton, N.J., entitled: "Results of Investigation of Conditions at Iron Foundry at South and Front Streets, Pembrig, NJ", consisting of 27 pages. The Technical Data contained in such report upon whose accuracy Contractor may rely are /here indicate any such Technical Data or state "none."/~~

~~— The following drawings regarding Hazardous Environmental Conditions at the Site are known to Owner:~~

~~— Drawings dated November 27, 2002, prepared by Eph Environmental Consultants, Princeton, N.J., entitled: “Iron Foundry Site Conditions”, consisting of 5 sheets numbered [] to [], inclusive.~~

- ~~1) All of the information in such drawings constitutes Technical Data on whose accuracy Contractor may rely, except for [] appearing on Drawing No. [] and [] appearing on Drawing No. [].~~

~~B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:~~

- ~~1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or~~
- ~~2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or~~
- ~~3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.~~

~~C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.~~

~~D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.~~

~~E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous~~

~~Environmental Condition, and impose a set off against payments to account for the associated costs.~~

- ~~F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.~~
- ~~G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set off.~~
- ~~H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.~~
- ~~I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.~~
- ~~J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.~~
- ~~K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.~~

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, ~~the Supplementary Conditions,~~ or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required ~~by the Supplementary Conditions or~~ other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article ~~and in the Supplementary Conditions.~~
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. ~~Unless a different standard is indicated in the Supplementary Conditions, all~~ All companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, ~~in the Supplementary Conditions,~~ or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or

any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, ~~the Supplementary Conditions~~, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified ~~in the Supplementary Conditions or~~ elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, ~~and any individuals or entities identified in the Supplementary Conditions~~; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article ~~and in the Supplementary Conditions~~, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.
- K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

| | |
|---|---------------------|
| State: | <u>Statutory</u> |
| Federal, if applicable (e.g., Longshoreman's): | <u>Statutory</u> |
| Jones Act coverage, if applicable: | |
| Bodily injury by accident, each accident | \$ <u>1,000,000</u> |
| Bodily injury by disease, aggregate | \$ <u>1,000,000</u> |
| Employer's Liability: | |
| Bodily injury, each accident | \$ <u>100,000</u> |
| Bodily injury by disease, each employee | \$ <u>100,000</u> |
| Bodily injury/disease aggregate | \$ <u>500,000</u> |
| For work performed in monopolistic states, stop-gap liability coverage shall be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of: | \$ _____ |
| Foreign voluntary worker compensation | <u>Statutory</u> |

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

| | |
|---|---------------------|
| General Aggregate | \$ <u>2,000,000</u> |
| Products - Completed Operations Aggregate | \$ <u>1,000,000</u> |
| Personal and Advertising Injury | \$ <u>1,000,000</u> |
| Each Occurrence (Bodily Injury and Property Damage) | \$ <u>1,000,000</u> |

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

| | |
|-------------------------------------|---------------------|
| Bodily Injury: | |
| Each person | \$ <u>1,000,000</u> |
| Each accident | \$ <u>1,000,000</u> |
| Property Damage: | |
| Each accident | \$ <u>1,000,000</u> |
| for | |
| Combined Single Limit of | \$ _____ |

4. Excess or Umbrella Liability:

| | |
|-------------------|---------------------|
| Per Occurrence | \$ <u>5,000,000</u> |
| General Aggregate | \$ <u>5,000,000</u> |

5. Contractor's Pollution Liability:

| | |
|-------------------|---------------------|
| Each Occurrence | \$ <u>1,000,000</u> |
| General Aggregate | \$ <u>1,000,000</u> |



If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insureds: Owner and Engineer

7. Contractor's Professional Liability:

| | |
|------------------|---------------|
| Each Claim | \$ <u>N/A</u> |
| Annual Aggregate | \$ <u>N/A</u> |

8. *Waiver of Subrogation – ~~{OWNER}~~City of Greenville and Heneghan and Associates, P.C. shall be additional insured on a direct primary basis on the Waiver of Subrogation*

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk:* ~~Unless otherwise provided in the Supplementary Conditions,~~ Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be ~~provided in the Supplementary Conditions or~~ required by Laws and Regulations). This insurance shall:
- include the Owner and Contractor as named insureds, and all Subcontractors, ~~and any individuals or entities required by the Supplementary Conditions~~ to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, ~~and any corresponding Supplementary Conditions,~~ the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood); ~~and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.~~ If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this

Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

- C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, ~~all individuals or entities identified in the Supplementary Conditions as insureds,~~ and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by,

arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, ~~all individuals or entities identified in the Supplementary Conditions as insureds,~~ the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.
- B-C. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments under Article 15.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. ~~Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted,~~ Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an “or equal” item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service;
~~and~~
 - ~~4) it is not objectionable to Owner. [Deleted]~~
 - 4) Must be compatible with existing components and equipment.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times;
and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor’s Expense*: Contractor shall provide all data in support of any proposed “or equal” item at Contractor’s expense.
- C. *Engineer’s Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each “or-equal” request. Engineer may require Contractor to furnish additional data about the proposed “or-equal” item. Engineer will be the sole judge of acceptability. No “or-equal” item will be ordered, furnished, installed, or utilized until Engineer’s review is complete and Engineer determines that the proposed item is an “or-equal”, which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer’s Determination*: Neither approval nor denial of an “or-equal” request shall result in any change in Contract Price. The Engineer’s denial of an “or-equal” request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent

possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, ~~as supplemented by the Specifications,~~ and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor shall not award work valued at more than fifty percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.
- B. ~~Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.~~ [Deleted]
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. ~~Owner also may require Contractor to retain specific replacements; provided, however, that~~ Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner

or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.
- B. Owner is exempt from payment of sales and compensating use taxes of the State of Illinois and of cities and counties thereof on all materials to be incorporated into the Work.
 - 1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
 - ~~1.2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by the Contractor, or to supplies or materials not incorporated into the Work.~~

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by

applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. ~~The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.~~
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
 8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.
- E. *Resubmittal Procedures:*
1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
 2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage 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 but only to the extent caused by any negligent

act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be ~~set forth in the Supplementary Conditions or~~ provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. ~~Unless otherwise provided in the Supplementary Conditions,~~ Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to

the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER’S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer’s status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner’s duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner’s duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner’s responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor’s failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner’s responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided ~~in the Supplementary Conditions~~, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided ~~in the Supplementary Conditions~~.

- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.
1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
 2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
 3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
 4. Liaison:
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
 5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
 6. Shop Drawings and Samples:
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
 7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
 8. Review of Work and Rejection of Defective Work:
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract

Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. Inspections, Tests, and System Start-ups:

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. Records:

- a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- c. Maintain records for use in preparing Project documentation.

11. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. Completion:

- a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
- b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
- 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
- 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
- 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
- 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
- 7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
- ~~4.8.~~ Authorize Owner to occupy the Project in whole or in part.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such

decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3)

other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.
3. *Field Orders:* Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

- B. An adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

B.C. The Contractor shall be responsible for the cost of any additional expenses occurred by the Owner as a result of the time extension, including but not limited to Engineering Services, Resident Project Representative, Owner's Representative, Legal, Administrative, any other costs incurred, etc.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.
1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.
- C. All Contract Change Orders must be concurred in by Agency before they are effective.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for

resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation:*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the

Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

- E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. ~~[Deleted]Contingency Allowance: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.~~
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions: Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. If the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract

~~formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the quantity of such item indicated in the Agreement; and the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;~~

- ~~2. If there is no corresponding adjustment with respect to any other item of Work; and there is no corresponding adjustment with respect to any other item of Work; and~~
- ~~3. If Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.~~

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer

as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by ~~a bill of sale, invoice, or other~~ documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 - 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 - 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement. No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage, or invest the retainage for the benefit

of the Contractor. The Application for Payment form to be used on this Project is EJCDC C-620. The Agency must approve all Applications for Payment before payment is made.

C. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

~~1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.~~

1. The Application for Payment with Engineer's recommendations will be presented to the Owner and Agency for consideration. If both the Owner and Agency find the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 15.01.E will become ten (10) days after transfer of corresponding funds to the Owner's bank account, and the Owner will make payment to the Contractor.

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;

- g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, ~~no later than seven days after the time of payment by Owner.~~ no later than the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

~~B-C.~~ If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

~~C-D.~~ At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

~~D-E.~~ After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

~~E-F.~~ Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

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

15.06 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner

at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 1. correct the defective repairs to the Site or such other adjacent areas;

2. correct such defective Work;
 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 1. elect in writing to invoke the dispute resolution process provided for in these Standard General Conditions~~the Supplementary Conditions~~; or
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in these Standard General Conditions ~~the Supplementary Conditions~~ or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

18.09 Tribal Sovereignty.

- A. No provision of this Agreement will be construed by any of the signatories as abridging or debilitating any sovereign powers of the {insert name of Tribe} Tribe; affecting the trust-beneficiary relationship between the Secretary of the Interior, Tribe, and Indian landowner(s); or interfering with the government-to-government relationship between the United States and the Tribe.

ARTICLE 19 – FEDERAL REQUIREMENTS

19.01 Agency Not a Party

- A. This Contract is expected to be funded in part with funds provided by agency. Neither Agency, nor any of its departments, entities, or employees is a party to this Contract.

19.02 Contract Approval

- A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the following "Certificate of Owner's Attorney" (Exhibit GC-A) before Owner submits the executed Contract Documents to Agency for approval.
- B. Concurrence by Agency in the award of the Contract is required before the Contract is effective.

19.03 Conflict of Interest

- A. Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

19.04 Gratuities

- A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.
- B. In the event this Contract is terminated as provided in paragraph 19.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

19.05 Audit and Access to Records

- A. Owner, Agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Engineer which are pertinent to the Agreement, for the purpose of making audits, examinations, excerpts, and transcriptions. Engineer shall maintain all required records for three years after final payment is made and all other pending matters are closed.

19.06 Small, Minority, and Women's Businesses

- A. If Contractor intends to let any subcontracts for a portion of the work, Contractor shall take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women's businesses on solicitation lists; (2) assuring that small, minority and women's businesses are solicited whenever they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) Contractor is encouraged to procure goods and services from labor surplus area firms.

19.07 Anti-Kickback

- A. Contractor shall comply with the Copeland Anti-Kickback Act (18 USC 874 and 40 USC 276c) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

19.08 Clean Air and Pollution Control Acts

- A. If this Contract exceeds \$100,000, Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h) and 42 USC 7401et. seq.), section 508 of the Clean Water Act (33 U.S.C. 1368) and Federal Water Pollution Control Act (33 USC 1251 et seq.), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15) is required. Contractor will report violations to the Agency and the Regional Office of the EPA.

19.09 State Energy Policy

- A. Contractor shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

19.10 Equal Opportunity Requirements

- A. If this Contract exceeds \$10,000, Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by

regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

- B. Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting Contractor's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.
- C. Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

19.11 Restrictions on Lobbying

- A. Contractor and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 319) as supplemented by applicable Agency regulations. This Law applies to the recipients of contracts and subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, Contractor must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 USC 1352. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

19.12 Environmental Requirements

When constructing a Project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental conditions:

- A. Wetlands – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
- B. Floodplains – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert 100 year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, i.e., alluvial soils on NRCS Soil Survey Maps.
- C. Historic Preservation – Any excavation by Contractor that uncovers an historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and

further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).

- D. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.
- E. Mitigation Measures – If the project had an Environmental Report, Environmental Assessment, or Environmental Impact Statement to meet the requirements of the National Environmental Policy Act, compliance with the mitigation measures, if any, in that document are hereby included as a condition of this contract. These mitigation measures are as follows: None.

ARTICLE 20 – STATE OF ILLINOIS REQUIREMENTS

20.01 State Prevailing Wage Rate Requirements

- A. The Contractor shall be required to pay a minimum of the State Prevailing Wage Rates for the project area, in accordance with Illinois State Law.

20.02 Employment of Illinois Workers on Public Works

- A. If at the time this contract is executed, or if during the term of this contract, there is excessive unemployment in Illinois as defined in the employment of Illinois Workers on Public Works Act, 30ILCS 570-0.01 et seq., as two consecutive months of unemployment exceeding 5%, the Contractor agrees to employ Illinois Laborers. An Illinois Laborer is defined as any person who has resided in Illinois for at least thirty (30) days and intends to become or remain an Illinois resident.

20.03 Substance Abuse Prevention on Public Works Projects Act

- A. The Contractor shall be required to comply with the Substance Abuse Prevention on Public Works Projects Act (Public Act 095-0635; HB 1855). As such, the Contractor may be required to sign the Owner's Substance Abuse Prevention Program Certification.

ARTICLE 21 – OTHER REQUIREMENTS

21.01 Certified Payroll

- A. Contractor shall submit Certified Payroll to the Owner with each pay request.

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Wage Rates

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This schedule contains the prevailing wage rates required to be paid for work performed on or after Monday, June 5, 2017 on public works projects in this County. Pursuant to 820 ILCS 130/4, public bodies in this County that have active public works projects are responsible for notifying all contractors and subcontractors working on those public works projects of the change (if any) to rates that were previously in effect. The failure of a public body to provide such notice does not relieve contractors or subcontractors of their obligations under the Prevailing Wage Act, including the duty to pay the relevant prevailing wage in effect at the time work subject to the Act is performed.

BOND COUNTY
PREVAILING WAGE RATES
EFFECTIVE JUNE 5, 2017

| TradeTitle | Region | Type | Class | Base Wage | Foreman Wage | M-F OT | OSA | OSH | H/W | Pension | Vacation | Training |
|----------------------|--------|------|-------|--------------|-----------------|-----------|-----|-----|-------|---------|----------|----------|
| ASBESTOS ABT-GEN | All | All | | 26.90 | 27.90 | 1.5 | 1.5 | 2.0 | 6.30 | 17.05 | 0.00 | 0.80 |
| ASBESTOS ABT-MEC | All | BLD | | 31.56 | 32.56 | 1.5 | 1.5 | 2.0 | 8.25 | 3.00 | 0.00 | 0.00 |
| BOILERMAKER | All | BLD | | 34.34 | 36.84 | 1.5 | 1.5 | 2.0 | 7.07 | 22.13 | 1.50 | 0.71 |
| BRICK MASON | All | BLD | | 32.73 | 34.65 | 1.5 | 1.5 | 2.0 | 8.35 | 11.24 | 2.00 | 0.80 |
| CARPENTER | All | All | | 36.98 | 38.48 | 1.5 | 1.5 | 2.0 | 6.80 | 8.75 | 0.00 | 0.45 |
| CEMENT MASON | All | All | | 32.65 | 33.65 | 1.5 | 1.5 | 2.0 | 9.85 | 13.00 | 0.00 | 0.30 |
| CERAMIC TILE FNSHER | All | BLD | | 27.48 | 0.00 | 1.5 | 1.5 | 2.0 | 6.45 | 5.70 | 0.00 | 0.58 |
| ELECTRIC PWR EQMT OP | E | All | 1 | 39.15 | 53.92 | 1.5 | 1.5 | 2.0 | 6.36 | 10.96 | 0.00 | 0.39 |
| ELECTRIC PWR EQMT OP | E | All | 2 | 34.96 | 53.92 | 1.5 | 1.5 | 2.0 | 6.36 | 9.79 | 0.00 | 0.35 |
| ELECTRIC PWR EQMT OP | W | All | | 41.25 | 45.99 | 1.5 | 1.5 | 2.0 | 6.95 | 11.56 | 0.00 | 0.41 |
| ELECTRIC PWR GRNDMAN | E | All | | 28.81 | 52.35 | 1.5 | 1.5 | 2.0 | 6.36 | 8.06 | 0.00 | 0.29 |
| ELECTRIC PWR GRNDMAN | W | All | | 30.79 | 45.99 | 1.5 | 1.5 | 2.0 | 5.19 | 8.63 | 0.00 | 0.31 |
| ELECTRIC PWR LINEMAN | E | All | | 49.05 | 53.92 | 1.5 | 1.5 | 2.0 | 6.36 | 13.73 | 0.00 | 0.49 |
| ELECTRIC PWR LINEMAN | W | All | | 47.43 | 45.99 | 1.5 | 1.5 | 2.0 | 7.99 | 13.29 | 0.00 | 0.48 |
| ELECTRIC PWR TRK DRV | W | All | | 32.38 | 47.82 | 1.5 | 1.5 | 2.0 | 5.67 | 9.08 | 0.00 | 0.32 |
| ELECTRICIAN | E | All | | 41.92 | 44.17 | 1.5 | 1.5 | 2.0 | 7.69 | 11.53 | 0.00 | 0.84 |
| ELECTRICIAN | W | All | | 39.16 | 41.51 | 1.5 | 1.5 | 2.0 | 7.99 | 8.42 | 0.00 | 0.98 |
| ELECTRONIC SYS TECH | E | BLD | | 33.57 | 35.57 | 1.5 | 1.5 | 2.0 | 7.52 | 4.37 | 0.00 | 0.40 |
| ELECTRONIC SYS TECH | W | BLD | | 32.76 | 34.76 | 1.5 | 1.5 | 2.0 | 3.65 | 8.48 | 0.00 | 0.40 |
| ELEVATOR CONSTRUCTOR | All | BLD | | 46.04 | 51.80 | 2.0 | 2.0 | 2.0 | 14.43 | 8.96 | 3.68 | 0.60 |

| | | | | | | | | | | | | |
|--------------------|-----|-----|---|-------|-------|-----|-----|-----|-------|-------|------|------|
| FLOOR LAYER | All | BLD | | 31.83 | 32.58 | 1.5 | 1.5 | 2.0 | 6.80 | 8.75 | 0.00 | 0.45 |
| GLAZIER | All | BLD | | 35.63 | 37.63 | 1.5 | 1.5 | 2.0 | 6.25 | 8.40 | 0.00 | 0.68 |
| HT/FROST INSULATOR | All | BLD | | 38.36 | 39.36 | 1.5 | 1.5 | 2.0 | 9.34 | 11.61 | 0.00 | 0.55 |
| IRON WORKER | All | All | | 31.50 | 33.50 | 1.5 | 1.5 | 2.0 | 9.01 | 15.20 | 0.00 | 0.42 |
| LABORER | All | All | | 26.40 | 26.40 | 1.5 | 1.5 | 2.0 | 6.30 | 17.05 | 0.00 | 0.80 |
| MACHINIST | All | BLD | | 45.35 | 47.85 | 1.5 | 1.5 | 2.0 | 7.26 | 8.95 | 1.85 | 0.00 |
| MARBLE FINISHERS | All | BLD | | 27.48 | 0.00 | 1.5 | 1.5 | 2.0 | 6.45 | 5.70 | 0.00 | 0.58 |
| MARBLE MASON | All | BLD | | 32.00 | 33.92 | 1.5 | 1.5 | 2.0 | 8.10 | 10.92 | 0.00 | 0.80 |
| MILLWRIGHT | All | All | | 36.98 | 38.48 | 1.5 | 1.5 | 2.0 | 6.80 | 8.75 | 0.00 | 0.45 |
| OPERATING ENGINEER | All | BLD | 1 | 35.85 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 2 | 34.72 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 3 | 30.24 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 4 | 30.30 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 5 | 29.97 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 6 | 38.40 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 7 | 38.70 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 8 | 38.98 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | BLD | 9 | 36.85 | 38.85 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 1 | 34.35 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 2 | 33.22 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 3 | 28.74 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 4 | 28.80 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 5 | 28.47 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 6 | 36.90 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 7 | 37.20 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 8 | 37.48 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| OPERATING ENGINEER | All | HWY | 9 | 35.35 | 37.35 | 1.5 | 1.5 | 2.0 | 11.60 | 17.60 | 0.00 | 1.00 |
| PAINTER | All | BLD | | 31.25 | 32.75 | 1.5 | 1.5 | 2.0 | 5.60 | 9.77 | 0.00 | 0.70 |
| PAINTER | All | HWY | | 32.45 | 33.95 | 1.5 | 1.5 | 2.0 | 5.60 | 9.77 | 0.00 | 0.70 |
| PAINTER OVER 30FT | All | BLD | | 32.25 | 33.75 | 1.5 | 1.5 | 2.0 | 5.60 | 9.77 | 0.00 | 0.70 |
| PAINTER PWR EQMT | All | BLD | | 32.25 | 33.75 | 1.5 | 1.5 | 2.0 | 5.60 | 9.77 | 0.00 | 0.70 |

| | | | | | | | | | | | | |
|-------------------|-----|-----|---|-------|-------|-----|-----|-----|-------|------|------|------|
| PAINTER PWR EQMT | All | HWY | | 33.45 | 34.95 | 1.5 | 1.5 | 2.0 | 5.60 | 9.77 | 0.00 | 0.70 |
| PILEDRIIVER | All | All | | 36.98 | 38.48 | 1.5 | 1.5 | 2.0 | 6.80 | 8.75 | 0.00 | 0.45 |
| PIPEFITTER | All | BLD | | 40.71 | 42.75 | 2.0 | 2.0 | 2.0 | 4.75 | 8.45 | 0.00 | 0.30 |
| PLASTERER | All | BLD | | 31.15 | 33.65 | 1.5 | 1.5 | 2.0 | 9.85 | 9.15 | 0.00 | 0.30 |
| PLUMBER | All | BLD | | 40.71 | 42.75 | 2.0 | 2.0 | 2.0 | 4.75 | 8.45 | 0.00 | 0.30 |
| ROOFER | All | BLD | | 31.35 | 33.35 | 1.5 | 1.5 | 2.0 | 8.95 | 7.80 | 0.00 | 0.34 |
| SHEETMETAL WORKER | All | All | | 33.05 | 34.55 | 1.5 | 1.5 | 2.0 | 8.83 | 8.04 | 1.99 | 0.42 |
| SPRINKLER FITTER | All | BLD | | 37.12 | 39.87 | 1.5 | 1.5 | 2.0 | 8.42 | 8.50 | 0.00 | 0.35 |
| TERRAZZO FINISHER | All | BLD | | 31.24 | 0.00 | 1.5 | 1.5 | 2.0 | 6.45 | 4.37 | 0.00 | 0.42 |
| TERRAZZO MASON | All | BLD | | 32.53 | 32.83 | 1.5 | 1.5 | 2.0 | 6.45 | 5.87 | 0.00 | 0.45 |
| TRUCK DRIVER | All | All | 1 | 35.15 | 38.67 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | All | 2 | 35.64 | 38.67 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | All | 3 | 35.91 | 38.67 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | All | 4 | 36.21 | 38.67 | 1.5 | 1.5 | 2.0 | 11.90 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | All | 5 | 37.17 | 38.67 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | O&C | 1 | 28.12 | 31.24 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | O&C | 2 | 28.51 | 31.24 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | O&C | 3 | 28.73 | 31.24 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | O&C | 4 | 28.97 | 31.24 | 1.5 | 1.5 | 2.0 | 11.90 | 5.86 | 0.00 | 0.25 |
| TRUCK DRIVER | All | O&C | 5 | 29.74 | 31.24 | 1.5 | 1.5 | 2.0 | 11.92 | 5.86 | 0.00 | 0.25 |

Explanations

BOND COUNTY

ELECTRICIANS AND ELECTRONIC SYSTEMS TECHNICIAN (EAST) - Townships of

Mulberry Grove, Pleasant Mount & Tamalco.

ELECTRICIANS AND ELECTRONIC SYSTEMS TECHNICIAN (WEST) - Townships of
Shoal Creek, LaGrange, Old Ripley, Central, Burgess & Mills

The following list is considered as those days for which holiday rates
of wages for work performed apply: New Years Day, Memorial Day,
Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and
Veterans Day in some classifications/counties. Generally, any of
these holidays which fall on a Sunday is celebrated on the following
Monday. This then makes work performed on that Monday payable at the
appropriate overtime rate for holiday pay. Common practice in a given
local may alter certain days of celebration. If in doubt, please
check with IDOL.

Oil and chip resealing (O&C) means the application of road oils and
liquid asphalt to coat an existing road surface, followed by
application of aggregate chips or gravel to coated surface, and
subsequent rolling of material to seal the surface.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous

materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER AND MARBLE FINISHER

The handling, at the building site, of all sand, cement, tile, marble or stone and all other materials that may be used and installed by [a] tile layer or marble mason. In addition, the grouting, cleaning, sealing, and mixing on the job site, and all other work as required in assisting the setter. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

ELECTRONIC SYSTEMS TECHNICIAN

Installation, service and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.

Excluded from this classification are energy management systems, life safety systems, supervisory controls and data acquisition systems not intrinsic with the above listed systems, fire alarm systems, nurse call systems and raceways exceeding fifteen feet in length.

OPERATING ENGINEER - BUILDING

GROUP I. Cranes, Dragline, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, All Locomotives, Cable Ways or Tower Machines, Hoists,

Hydraulic Backhoes, Ditching Machines or Backfiller, Cherrypickers, Overhead Cranes, Roller - Steam or Gas, Concrete Pavers, Excavators, Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, Derrick-Type Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Tournapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than Derrick Type), Mud Jacks, or Well Drilling Machines, Boring Machines or Track Jacks, Mixers, Conveyors (Two), Air Compressors (Two), Water Pumps regardless of size (Two), Welding Machines (Two), Siphons or Jets (Two), Winch Heads or Apparatuses (Two), Light Plants (Two), All Tractors regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (One), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, self-propelled concrete saws of all types and sizes with their attachments, gob-hoppers, excavators all sizes, the repair and greasing of all diesel hammers, the operation and set-up of bidwells, water blasters of all sizes and

their clutches, hydraulic jacks where used for hoisting, operation of log skidders, iceolators used on and off of pipeline, condor cranes, bow boats, survey boats, bobcats and all their attachments, skid steer loaders and all their attachments, creter cranes, batch plants, operator (all sizes), self propelled roto mills, operation of conveyor systems of any size and any configuration, operation, repair and service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, Nail launchers when mounted on a machine or self-propelled, operation of con-cover machines, and all Operators except those listed below).

GROUP II. Assistant Operators.

GROUP III. Air Compressors (One), Water Pumps, regardless of Size (One), Waterblasters (one), Welding Machine (One), Mixers (One Bag), Conveyor (One), Siphon or Jet (One), Light Plant (One), Heater (One), Immobile Track Air (One), and Self Propelled Walk-Behind Rollers.

GROUP IV. Asphalt Spreader Oilers, Fireman on Whirlies and Heavy Equipment Oilers, Truck Cranes, Dredges, Monigans, Large Cranes -

(Over 65-ton rated capacity) Concrete Plant Oiler, Blacktop Plant Oiler, and Creter Crane Oiler (when required).

GROUP V. Oiler.

GROUP VI. Operators on equipment with Booms, including jibs, 100 feet and over, and less than 150 feet long.

GROUP VII. Operators on equipment with Booms, including jibs, 150 feet and over, and less than 200 feet long.

GROUP VIII. Operators on Equipment with Booms, including jibs, 200 feet and over; Tower Cranes; and Whirlie Cranes.

GROUP IX. Master Mechanic

OPERATING ENGINEERS - Highway

GROUP I. Cranes, Dragline, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading

Machines, All Locomotives, Cable Ways or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines or Backfiller, Cherrypickers, Overhead Cranes, Roller - Steam or Gas, Concrete Pavers, Excavators, Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, Derrick-Type Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Tournapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than Derrick Type), Mud Jacks, Well Drilling Machines, Boring Machines, Track Jacks, Mixers, Conveyors (Two), Air Compressors (Two), Water Pumps regardless of size (Two), Welding Machines (Two), Siphons or Jets (Two), Winch Heads or Apparatuses (Two), Light Plants (Two), All Tractors regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (One), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, self-propelled concrete saws of all types and sizes with their attachments, gob-hoppers, excavators all sizes, the repair and greasing of all diesel hammers, the

operation and set-up of bidwells, water blasters of all sizes and their clutches, hydraulic jacks where used for hoisting, operation of log skidders, iceolators used on and off of pipeline, condor cranes, bow boats, survey boats, bobcats and all their attachments, skid steer loaders and all their attachments, creter cranes, batch plants, operator (all sizes), self propelled roto mills, operation of conveyor systems of any size and any configuration, operation, repair and service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, Nail launchers when mounted on a machine or self-propelled, operation of con-cover machines, and all Operators (except those listed below).

GROUP II. Assistant Operators.

GROUP III. Air Compressors (One), Water Pumps, regardless of Size (One), Waterblasters (one), Welding Machine (One), Mixers (One Bag), Conveyor (One), Siphon or Jet (One), Light Plant (One), Heater (One), Immobile Track Air (One), and Self Propelled Walk-Behind Rollers.

GROUP IV. Asphalt Spreader Oilers, Fireman on Whirlies and Heavy Equipment Oilers, Truck Cranes, Dredges, Monigans, Large Cranes - (Over 65-ton rated capacity) Concrete Plant Oiler, Blacktop Plant Oiler, and Creter Crane Oiler (when required).

GROUP V. Oiler.

GROUP VI. Operators on equipment with Booms, including jibs, 100 feet and over, and less than 150 feet long.

GROUP VII. Operators on equipment with Booms, including jibs, 150 feet and over, and less than 200 feet long.

GROUP VIII. Operators on Equipment with Booms, including jibs, 200 feet and over; Tower Cranes; and Whirlie Cranes.

GROUP IX. Mechanic

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Drivers on 2 axle trucks hauling less than 9 ton. Air compressor and welding machines and brooms, including those pulled by separate units, truck driver helpers, warehouse employees, mechanic helpers, greasers and tiremen, pickup trucks when hauling materials, tools, or workers to and from and on-the-job site, and fork lifts up to 6,000 lb. capacity.

Class 2. Two or three axle trucks hauling more than 9 ton but hauling less than 16 ton. A-frame winch trucks, hydrolift trucks, vactor trucks or similar equipment when used for transportation purposes. Fork lifts over 6,000 lb. capacity, winch trucks, four axle combination units, and ticket writers.

Class 3. Two, three or four axle trucks hauling 16 ton or more. Drivers on water pulls, articulated dump trucks, mechanics and working forepersons, and dispatchers. Five axle or more combination units.

Class 4. Low Boy and Oil Distributors.

Class 5. Drivers who require special protective clothing while employed on hazardous waste work.

TRUCK DRIVER - OIL AND CHIP RESEALING ONLY.

This shall encompass laborers, workers and mechanics who drive contractor or subcontractor owned, leased, or hired pickup, dump, service, or oil distributor trucks. The work includes transporting materials and equipment (including but not limited to, oils, aggregate supplies, parts, machinery and tools) to or from the job site; distributing oil or liquid asphalt and aggregate; stock piling material when in connection with the actual oil and chip contract.

The Truck Driver (Oil & Chip Resealing) wage classification does not include supplier delivered materials.

TERRAZZO FINISHER

The handling of all materials used for Mosaic and Terrazzo work including preparing, mixing by hand, by mixing machine or transporting of pre-mixed materials and distributing with shovel, rake, hoe, or

pail, all kinds of concrete foundations necessary for Mosaic and Terrazzo work, all cement terrazzo, magnesite terrazzo, Do-O-Tex terrazzo, epoxy matrix terrazzo, exposed aggregate, rustic or rough washed for exterior or interior of buildings placed either by machine or by hand, and any other kind of mixture of plastics composed of chips or granules when mixed with cement, rubber, neoprene, vinyl, magnesium chloride or any other resinous or chemical substances used for seamless flooring systems, and all other building materials, all similar materials and all precast terrazzo work on jobs, all scratch coat used for Mosaic and Terrazzo work and sub-bed, tar paper and wire mesh (2x2 etc.) or lath. The rubbing, grinding, cleaning and finishing of same either by hand or by machine or by terrazzo resurfacing equipment on new or existing floors. When necessary finishers shall be allowed to assist the mechanics to spread sand bed, lay tarpaper and wire mesh (2x2 etc.) or lath. The finishing of cement floors where additional aggregate of stone is added by spreading or sprinkling on top of the finished base, and troweled or rolled into the finish and then the surface is ground by grinding machines.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available.

If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators

(regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

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**CONSTRUCTION CONTRACTORS
AFFIRMATIVE ACTION REQUIREMENTS
GOALS (%) FOR MINORITY AND WOMEN PARTICIPATION
As Published in the Friday, October 3, 1980 Federal Register**

Goals for Participation of Women (Entire State) 6.9

Goals for Minority Participation:

| | | | | | | | | | |
|-------------------|-------------|------------------|-------------|-------------------|-------------|--------------------|-------------|-------------------|-------------|
| Adams | 3.1 | Edgar | 4.8 | Johnson | 11.4 | Menard | 4.5 | Shelby | 4.0 |
| Alexander | 11.4 | Edwards | 3.5 | Kane | 19.6 | Mercer | 3.4 | Stark | 3.3 |
| Bond | 11.4 | Effingham | 11.4 | Kankakee | 9.1 | Monroe | 14.7 | St. Clair | 14.7 |
| Boone | 6.3 | Fayette | 11.4 | Kendall | 18.4 | Montgomery | 11.4 | Stephenson | 4.6 |
| Brown | 3.1 | Ford | 4.8 | Knox | 3.3 | Morgan | 4.0 | Tazewell | 4.4 |
| Bureau | 18.4 | Franklin | 11.4 | Lake | 19.6 | Moultrie | 4.0 | Union | 11.4 |
| Calhoun | 11.4 | Fulton | 3.3 | LaSalle | 18.4 | Ogle | 4.6 | Vermilion | 4.8 |
| Carroll | 3.4 | Gallatin | 3.5 | Lawrence | 3.5 | Peoria | 4.4 | Wabash | 3.5 |
| Cass | 4.0 | Greene | 11.4 | Lee | 4.6 | Perry | 11.4 | Warren | 3.3 |
| Champaign | 7.8 | Grundy | 18.4 | Livingston | 18.4 | Piatt | 4.8 | Washington | 11.4 |
| Clark | 2.5 | Hamilton | 3.5 | Logan | 4.0 | Pike | 3.1 | Wayne | 11.4 |
| Clay | 11.4 | Hancock | 3.4 | Macon | 7.6 | Pope | 5.2 | White | 3.5 |
| Clinton | 14.7 | Hardin | 5.2 | Macoupin | 11.4 | Pulaski | 11.4 | Whiteside | 3.4 |
| Coles | 4.8 | Henderson | 3.4 | Madison | 14.7 | Putnam | 18.4 | Will | 20.9 |
| Cook | 19.6 | Henry | 4.6 | Marion | 11.4 | Randolph | 11.4 | Williamson | 11.4 |
| Crawford | 2.5 | Iroquois | 18.4 | Marshall | 3.3 | Richland | 11.4 | Winnebago | 6.3 |
| Cumberland | 4.8 | Jackson | 11.4 | Mason | 3.3 | Rock Island | 4.6 | Woodford | 4.4 |
| DeKalb | 18.4 | Jasper | 11.4 | Massac | 5.2 | Saline | 3.5 | | |
| DeWitt | 4.0 | Jefferson | 11.4 | McDonough | 3.3 | Sangamon | 4.5 | | |
| Douglas | 4.8 | Jersey | 11.4 | McHenry | 19.6 | Schuyler | 3.3 | | |
| DuPage | 19.6 | JoDaviess | 0.5 | McLean | 2.5 | Scott | 4.0 | | |

(10-22-97) PN 152

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USDA Rural Development Construction Sign

In accordance with attached Exhibit A, the Contractor shall each erect one sign at a prominent location on the project when construction begins, location to be determined by the OWNER.

An electric version of this .pdf document may be found at: www.rurdev.usda.gov/IL_engineering.html. This document may be edited by project engineers to include specific project information.

USDA Rural Development will not approve plans and specifications until the sign detail is included in the appropriate contracts.

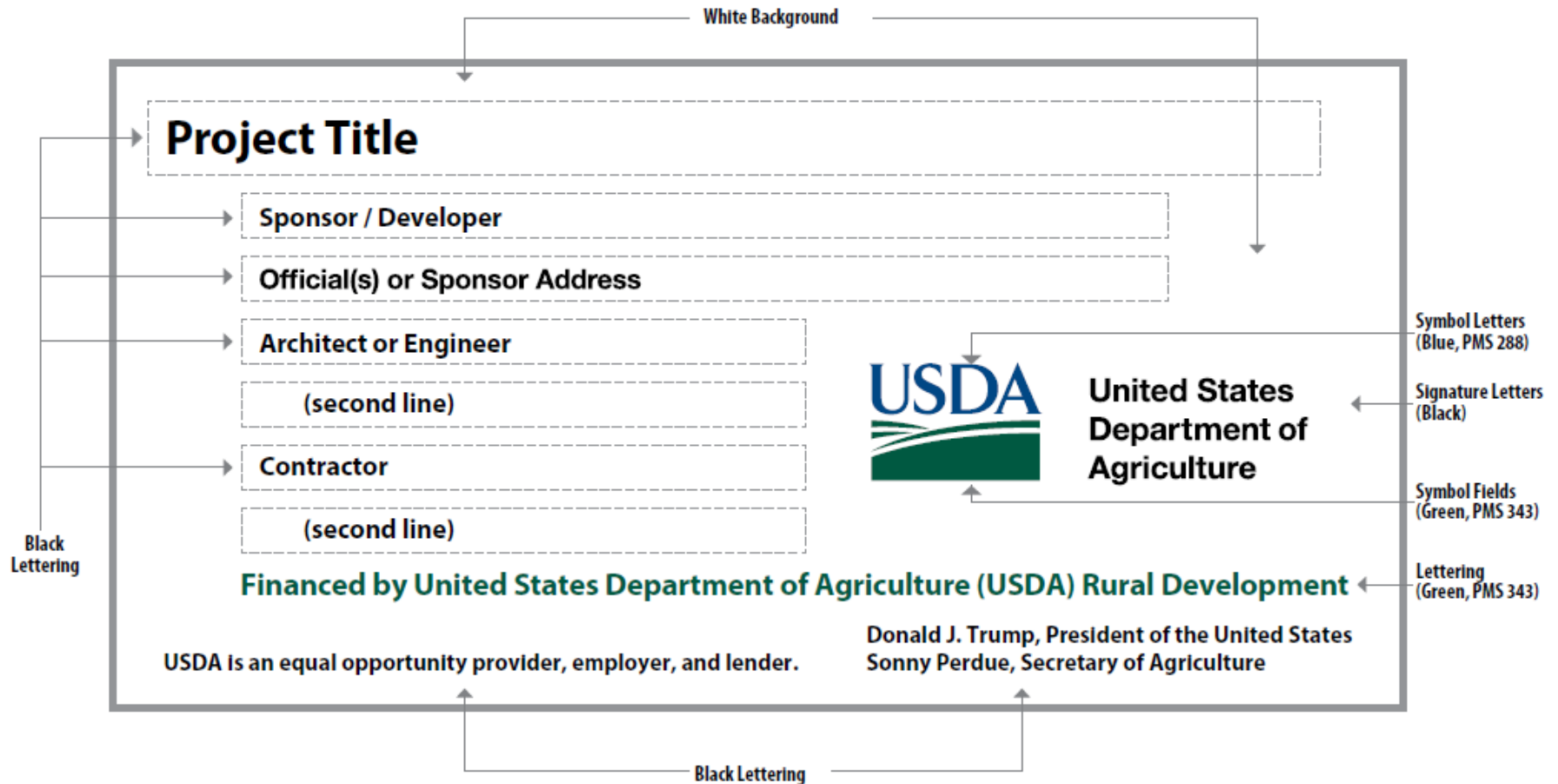
If funding from other Federal or a State Agency is being provided and a project sign is required by that funding source, the Community Programs Director may modify the standard project sign as determined appropriate. Sign details may also be modified to show multiple contractors, but typically only Prime Contractors should be shown.

The contractor will remove the temporary construction sign when all construction has been completed.

o O o

TEMPORARY CONSTRUCTION SIGN FOR RURAL DEVELOPMENT PROJECTS

Recommended Fonts: Helvetica, Arial, or Myriad Pro



SIGN DIMENSIONS : 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x 3/4")
PLYWOOD PANEL (APA RATED A-B GRADE-EXTERIOR)



Contractor's Application for Payment No. _____

| | | |
|-----------------------|---------------------------|-------------------------|
| Application Period: | | Application Date: |
| To (Owner): | From (Contractor): | Via (Engineer): |
| Project: | Contract: | |
| Owner's Contract No.: | Contractor's Project No.: | Engineer's Project No.: |

Application For Payment

Change Order Summary

| Approved Change Orders | | |
|------------------------|-----------|------------|
| Number | Additions | Deductions |
| | | |
| | | |
| | | |
| | | |
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| | | |
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| | | |
| | | |
| TOTALS | | |
| NET CHANGE BY | | |
| CHANGE ORDERS | | |

| | |
|--|----------|
| 1. ORIGINAL CONTRACT PRICE..... | \$ _____ |
| 2. Net change by Change Orders..... | \$ _____ |
| 3. Current Contract Price (Line 1 ± 2)..... | \$ _____ |
| 4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)..... | \$ _____ |
| 5. RETAINAGE: | |
| a. X _____ Work Completed..... | \$ _____ |
| b. X _____ Stored Material..... | \$ _____ |
| b. X _____ Clean-up Retainage..... | \$ _____ |
| c. Total Retainage (Line 5.a + Line 5.b)..... | \$ _____ |
| 6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)..... | \$ _____ |
| 7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... | \$ _____ |
| 8. AMOUNT DUE THIS APPLICATION..... | \$ _____ |
| 9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)..... | \$ _____ |

| | |
|---|-------------|
| Contractor's Certification The undersigned Contractor certifies, to the best of its knowledge, the following: (1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment; (2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and (3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective. | |
| Contractor Signature | |
| By: _____ | Date: _____ |

| | |
|--------------------|--|
| Payment of: | \$ _____ |
| | (Line 8 or other - attach explanation of the other amount) |
| is recommended by: | _____ (Date) _____ |
| | (Engineer) |
| Payment of: | \$ _____ |
| | (Line 8 or other - attach explanation of the other amount) |
| is approved by: | _____ (Date) _____ |
| | (Owner) |
| Approved by: | _____ (Date) _____ |
| | Funding or Financing Entity (if applicable) |

Progress Estimate - Unit Price Work

Contractor's Application

[illegible]

Stored Material Summary

Contractor's Application

[illegible]

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PAYROLL NO.

FOR WEEK ENDING

PROJECT AND LOCATION

PROJECT OR CONTRACT NO.

| (1) | (2) | (3) | OT OR ST | (4) DAY AND DATE | (5) | (6) | (7) | (8) DEDUCTIONS | | | | | | (9) | | | | | | | |
|--|-------------------------------|---------------------|----------|-----------------------|-----|-----|-----|----------------|--|--|-------------|-------------|---------------------|------|------------------|--|--|-------|------------------|-------------------------|--|
| NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER | NO. OF WITHHOLDING EXEMPTIONS | WORK CLASSIFICATION | | | | | | | | | TOTAL HOURS | RATE OF PAY | GROSS AMOUNT EARNED | FICA | WITH-HOLDING TAX | | | OTHER | TOTAL DEDUCTIONS | NET WAGES PAID FOR WEEK | |
| | | | | HOURS WORKED EACH DAY | | | | | | | | | | | | | | | | | |
| | | | O | | | | | | | | | | | | | | | | | | |
| | | | S | | | | | | | | | | | | | | | | | | |
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| | | | S | | | | | | | | | | | | | | | | | | |

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by _____ on the _____
(Contractor or Subcontractor)
_____ ; that during the payroll period commencing on the _____
(Building or Work)
_____ day of _____, _____, and ending the _____ day of _____, _____,
all persons employed on said project have been paid the full weekly wages earned, that no rebates have
been or will be made either directly or indirectly to or on behalf of said
_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly
from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part
3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948,
63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are
correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the
applicable wage rates contained in any wage determination incorporated into the contract; that the classifications
set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship
program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and
Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered
with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:
(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in
the above referenced payroll, payments of fringe benefits as listed in the contract
have been or will be made to appropriate programs for the benefit of such employees,
except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid,
as indicated on the payroll, an amount not less than the sum of the applicable
basic hourly wage rate plus the amount of the required fringe benefits as listed
in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

| EXCEPTION (CRAFT) | EXPLANATION |
|-------------------|-------------|
| | |
| | |
| | |
| | |
| | |
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| | |

REMARKS:

| | |
|----------------|-----------|
| NAME AND TITLE | SIGNATURE |
| | |

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR
SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE
31 OF THE UNITED STATES CODE.

PARTIAL WAIVER OF LIEN

To All Whom It May Concern:

WHEREAS, the undersigned has been employed by (A) _____
_____ to
furnish labor and materials for (B) _____
_____, under
a contract (C) _____ for the
improvement of the premises described as (D) _____
_____ in the
_____ (City-Village) of _____, County of _____, State of _____ of which
_____ is the Owner.

NOW, THEREFORE, this _____ day of _____, 20____, for and in consideration of the sum of
(E) _____ Dollars (\$_____)

paid simultaneously herewith, the receipt whereof is hereby acknowledged by the undersigned, the undersigned does hereby waive and release to the extent only of the aforesaid amount, any lien rights to, or claim of lien with respect to and on said above-described premises, and the improvements thereon, and on the monies or other considerations due or to become due from the owner, by virtue of said contract, on account of labor, services, materials, fixtures, apparatus or machinery furnished by the undersigned to or for the above-described premises, but only to the extent of the payment aforesaid.

(SEAL)

(Affix corporate
Seal here)

(SEAL)

(F) _____

(name of sole ownership, corporation or partnership)

(Signature)

TITLE: _____

INSTRUCTIONS FOR PARTIAL WAIVER

- (A) Name person or firm with whom you agreed to furnish either labor, or services, or materials, or both.
- (B) Fill in nature and extent of work: strike the word labor or the word materials if not in your contract.
- (C) If you have more than one contract on the same premises, describe the contract by number, if available, date and extent of work.
- (D) Furnish an accurate enough description of the improvement and location of the premises so that it can be distinguished from any other property.
- (E) Amount shown should be the amount actually received on that date.
- (F) If waiver is for a corporation, corporate name should be used, corporate seal affixed and title of officer signing waiver should be set forth; if waiver is for a partnership, the partnership name should be used, partner should sign and designate himself as partner.

Construction Industry Affairs Committee of Chicago.

FINAL WAIVER OF LIEN

To All Whom It May Concern:

WHEREAS, the undersigned has been employed by (A) _____
_____ to
furnish labor and materials for (B) _____
_____..under
a contract (C) _____ for the
improvement of the premises described as (D) _____
_____ in the
_____ (City-Village) of _____, County of _____, State of _____ of which
_____ is the Owner.

NOW, THEREFORE, this _____ day of _____, 20____, for and in consideration of the sum of
(E) _____ Dollars (\$_____)

paid simultaneously herewith, the receipt whereof is hereby acknowledged by the undersigned, the undersigned does hereby waive and release any lien rights to, or claim of lien with respect to and on said above-described premises, and the improvements thereon, and on the monies or other considerations due or to become due from the owner, on account of labor, services, materials, fixtures, apparatus or machinery heretofore or which may hereafter be furnished by the undersigned to or for the above-described premises, by virtue of said contract.

(F) _____ (SEAL)
(name of sole ownership, corporation or partnership)

(Affix corporate
Seal here)

(Signature)

TITLE: _____

INSTRUCTIONS FOR FINAL WAIVER

- (A) Person or firm with whom you agreed to furnish either labor, or services, or materials, or both.
- (B) Fill in nature and extent of work: strike the word labor or the word materials if not in your contract.
- (C) If you have more than one contract on the same premises, describe the contract by number, if available, date and extent of work.
- (D) Furnish an accurate enough description of the improvement and location of the premises so that it can be distinguished from any other property.
- (E) Amount shown should be the amount actually received and equal to total amount of contract as adjusted.
- (F) If waiver is for a corporation, corporate name should be used, corporate seal affixed and title of officer signing waiver should be set forth; if waiver is for a partnership, the partnership name should be used, partner should sign and designate himself as partner.

Approved By The
Construction Industry Affairs Committee (CIAC).

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CERTIFICATE OF SUBSTANTIAL COMPLETION

| | |
|--|-----------------------------------|
| Owner: City of Greenville | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: Heneghan and Associates, P.C. | Engineer's Project No.: 40027-500 |
| Project: Sanitary Sewer Improvements for Un-Served Areas | Contract Name: |

This [preliminary] [final] Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and 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 Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities: ☐ None
☐ As follows

Amendments to Contractor's responsibilities: ☐ None
☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

| EXECUTED BY ENGINEER: | RECEIVED: | RECEIVED: |
|-------------------------------------|---|--|
| By: _____ (Authorized signature) | By: _____ Owner (Authorized Signature) | By: _____ Contractor (Authorized Signature) |
| Title: _____ | Title: _____ | Title: _____ |
| Date: _____ | Date: _____ | Date: _____ |

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Work Change Directive No.

Date of Issuance:

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments: *[List documents supporting change]*

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: *[check one or both of the following]*

☐ Non-agreement on pricing of proposed change.

☐ Necessity to proceed for schedule or other Project reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

| | | |
|----------------|----|------------------------|
| Contract Price | \$ | [increase] [decrease]. |
|----------------|----|------------------------|

| | | |
|---------------|------|------------------------|
| Contract Time | days | [increase] [decrease]. |
|---------------|------|------------------------|

Basis of estimated change in Contract Price:

☐ Lump Sum

☐ Unit Price

☐ Cost of the Work

☐ Other

RECOMMENDED:

AUTHORIZED BY:

RECEIVED:

By:

Engineer (Authorized Signature)

By:

Owner (Authorized Signature)

By:

Contractor (Authorized Signature)

Title:

Title:

Title:

Date:

Date:

Date:

Approved by Funding Agency (if applicable)

By:

Date:

Title:

Intentionally Blank

Change Order No. _____

| | |
|--|-----------------------------------|
| Date of Issuance: | Effective Date: |
| Owner: City of Greenville | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: Heneghan and Associates, P.C. | Engineer's Project No.: 40027-500 |
| Project: Sanitary Sewer Improvements for Un-Served Areas | Contract Name: |

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments: *[List documents supporting change]*

| CHANGE IN CONTRACT PRICE | CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i> |
|--|---|
| Original Contract Price: \$ _____ | Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates |
| [Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: \$ _____ | [Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____ days |
| Contract Price prior to this Change Order: \$ _____ | Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates |
| [Increase] [Decrease] of this Change Order: \$ _____ | [Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates |
| Contract Price incorporating this Change Order: \$ _____ | Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates |

| | | | | | |
|------------------------|------------------------------|------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| RECOMMENDED: | | ACCEPTED: | | ACCEPTED: | |
| By: _____ | By: _____ | By: _____ | By: _____ | By: _____ | By: _____ |
| Engineer (if required) | Owner (Authorized Signature) | Owner (Authorized Signature) | Contractor (Authorized Signature) | Contractor (Authorized Signature) | Contractor (Authorized Signature) |
| Title: _____ | Title: _____ | Title: _____ | Title: _____ | Title: _____ | Title: _____ |
| Date: _____ | Date: _____ | Date: _____ | Date: _____ | Date: _____ | Date: _____ |

Approved by Funding Agency (if applicable)

By: _____ Date: _____
Title: _____

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Field Order No. _____

Date of Issuance:

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 11.01, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification(s)

Drawing(s) / Detail(s)

Description:

Attachments:

ISSUED:

RECEIVED:

By:

Engineer (Authorized Signature)

By:

Contractor (Authorized Signature)

Title:

Title:

Date:

Date:

Copy to: Owner

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WATER AND SEWER LINE CONSTRUCTION STANDARDS AND POLICIES

**Established by the
ILLINOIS DEPARTMENT OF AGRICULTURE**

The following standards and policies will serve to minimize the negative agricultural impacts that may result due to water and sewer line construction.

The standards and policies only apply to construction activities occurring partially or wholly on privately owned agricultural land. They do not apply to construction activities occurring on highway or railroad right-of-way, or on publicly owned land. The only exceptions are the construction standards relating to the repair of drainage tile (Item No. 3). The tile line construction standards shall be implemented regardless of where drainage tile is encountered.

Conditions

The mitigative actions specified in the construction standards and policies will be implemented in accordance with the conditions listed below:

- A. All mitigative actions are subject to change by landowners, provided such changes are acceptable to the Project Sponsor.
- B. The Project Sponsor may negotiate with landowners to carry out the mitigative actions that landowners wish to perform themselves. The landowners will receive the area commercial rate for their labor and machinery costs.
- C. All mitigative actions, unless otherwise specified, will be implemented within 45 days of completion of water or sewer line facilities on any affected property, weather and landowner permitting. Temporary repairs will be made by the Project Sponsor during the construction process as needed to minimize the risk of additional property damage that may result from an extended construction time period.
- D. All mitigative actions will extend to associated future construction, maintenance, and repairs.
- E. The Project Sponsor will provide a copy of the Water and Sewer Line Construction Standards and Policies to all owners of agricultural land that will be impacted by water and/or sewer line construction, and will do at the time of easement contract negotiations.

Definitions

| | |
|-------------------|---|
| Project Sponsor | - Entity proposing the construction of water or sewer lines and their related appurtenances. |
| Agricultural land | - Land used for cropland, pastureland, managed woodlands, truck gardens, orchards, nurseries, and other related agricultural enterprises dependent upon soil integrity. |
| Cropland | - Land used for growing row crops, small grains, or hay; includes land which was formerly used as cropland, but is currently in a government set-aside or conservation reserve program. |

- Water or Sewer Line - Includes water transmission and distribution lines, sewer trunk lines, sewer gravity flow lines, interceptors, or force mains and any related appurtenances.
- Landowner - Person(s) responsible for making decisions regarding the restoration of the land adversely impacted by a water or sewer line.
- Prime Farmland - Agricultural land comprised of soils that are defined by the USDA Natural Resources Conservation Service as being "Prime" soils (generally considered the most productive soils with the least input of nutrients and management).
- Right-of-Way - Includes the permanent and temporary easements that the Project Sponsor acquires for the purpose of constructing water or sewer lines across privately owned land.

WATER AND SEWER LINE CONSTRUCTION STANDARDS AND POLICIES

1. Water and Sewer Line Depth

- A. All water and sewer lines which are placed in trenches 24 inches in width or less will be buried with a minimum of 42 inches **(60 inches are suggested by the Illinois Department of Agriculture)** of top cover where they cross cropland.
- B. All water and sewer lines that are placed in trenches greater than 24 inches in width will be buried with 60 inches of topcover where they cross cropland.
- C. In terrain where bedrock prevents the placement of any water or sewer lines at the depths specified in 1.A. or 1.B. above, the water or sewer lines will be buried as deep as is practicable and feasible.

2. Topsoil Replacement

The following standards apply only when water and sewer lines are buried in trenches that are greater than 24 inches wide.

- A. The actual depth of the topsoil, will first be stripped from the area to be excavated for a water or sewer line trench, all bore pits, and other areas of excavation.
- B. All subsoil material that is removed from the trench will be placed in a second stockpile that is separate from the topsoil stockpile.
- C. In backfilling the trench and other excavated areas, the stockpiled subsoil material will be placed back into the trench first. The topsoil will be replaced last so that it remains the top layer of soil.
- D. The topsoil and subsoil must be replaced within the trench and other excavated area so that after settling occurs, the land's original contour (with an allowance for settling) will be achieved.

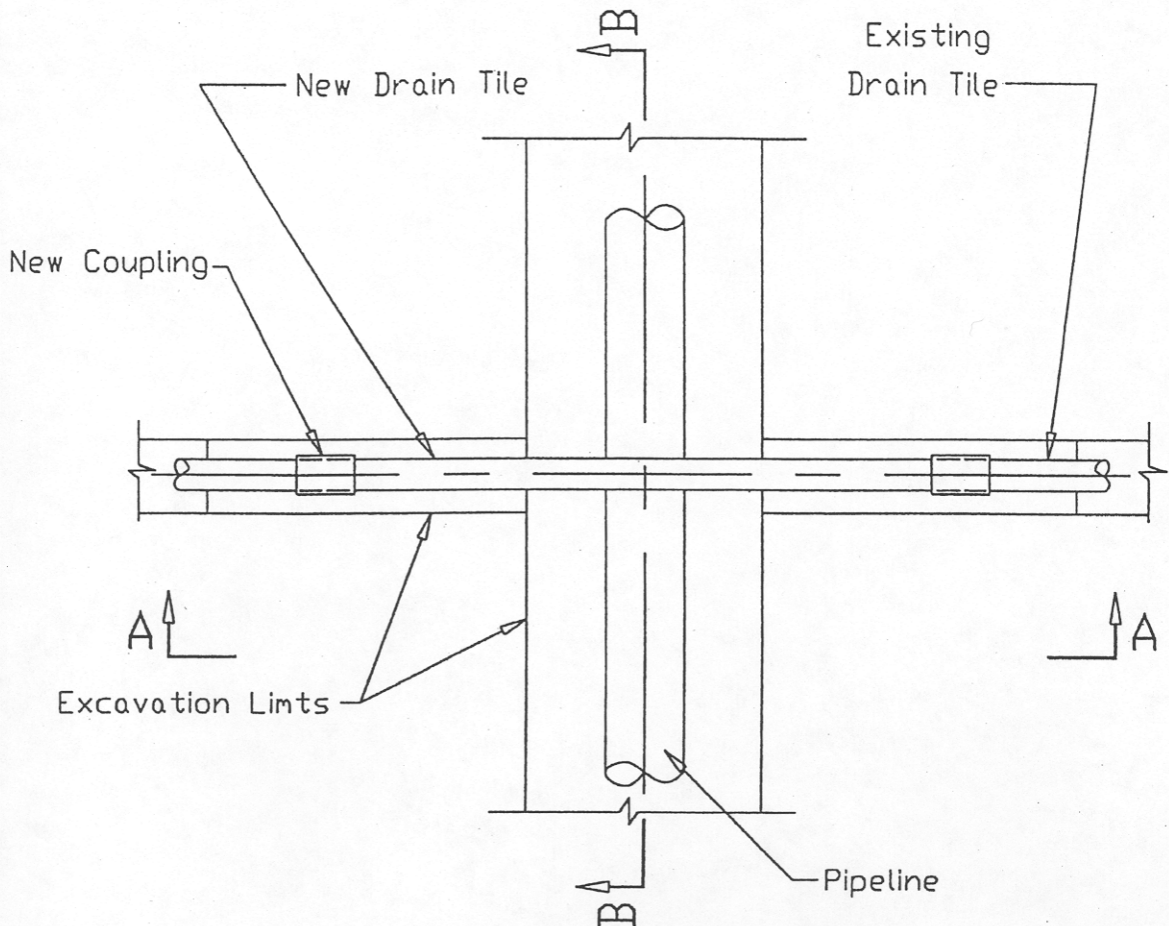
- E. The subsoil displaced by the water or sewer line must be hauled off the landowner's premises or disposed of on the landowner's premises at a location that is acceptable to the landowner.

3. Repair Of Damaged Tile Lines

If underground drainage tile is damaged by water or sewer line construction, it must be repaired in a manner that assures the tile line's proper operation at the point of repair. The following standards and policies shall apply to the tile line repairs.

- A. The Project Sponsor will endeavor to locate all tile lines prior to water or sewer line construction so repairs can be made if necessary. The Project Sponsor will contact affected landowners/tenants for their knowledge of tile line locations prior to any water or sewer line construction. All identified tile lines will be flagged to alert construction crews to the possible need for tile line repairs.
- B. All tile lines shall be repaired with materials of the same or better quality as that which was damaged.
- C. All damaged tile lines shall be immediately and temporarily repaired until such time that permanent repairs can be made.
- D. Where tile lines are severed by water or sewer line trenches, non-compactable support must be added around the repaired tile lines in accordance with the attached detail drawings.
 - 1. Within the trench, maximum rock size shall be 1 1/2 inch river gravel or 1 inch crushed stone for backfill under all tile lines.
 - 2. There must be a minimum of one foot of separation between a tile line and the water or sewer line whether the line passes over or under the tile line.
 - 3. In no instance will the grade of a tile line be changed.
- E. Heavy construction equipment working within a water or sewer line right-of-way may crush shallow drainage tile. All tile lines intersecting the water or sewer line trench will be probed laterally for their entire length within the water or sewer line right-of-way to check for damaged tile. Probing must occur immediately prior to the permanent repair of any severed tile lines. If tile lines are found to be damaged, they must be repaired so they operate as well after construction as before construction began, and in a manner that is acceptable to the landowner.
- F. All permanent tile line repairs must be made within 14 days of the date the damage occurred, weather and landowner permitting. If the landowner elects to make his/her own tile repairs, such damage payments will be negotiated with the Project Sponsor and must also be made within 14 days of the date of the completed repair work.
- G. The Project Sponsor will remain liable for a period of three (3) years following the completion of the water or sewer lines to ensure that all tile line repairs do not fail. The Project Sponsor will not be responsible for tile line repairs that the Project Sponsor pays the landowner to perform.

FIELD TILE REPAIR



EXCAVATION PLAN

NOTES:

1. Coarse aggregate shall be gravel, crushed gravel, pit run gravel or crushed stone and shall conform to the requirements of IDOT Standard Specification for Road and Bridge Construction Article 1004.01 and CA-18 gradation.
2. Geotextile may be woven or non-woven and shall conform to the requirements of Class 1 in the attached table 1 or 2. In addition, when pipeline trench depth exceeds 10 feet, puncture strength (ASTM D 483) shall be 150 lbs or greater.
3. New tile should be equal to or better than existing tile. Dual Wall polyethylene tubing conforming to ASHTO M-252 or M-294 may be used where existing tile is rigid conduit (clay or concrete).

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Project _____
 Designed _____ Date _____
 Checked _____ Date _____
 Approved _____ Date _____



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 CONSERVATION SERVICE
 ILLINOIS

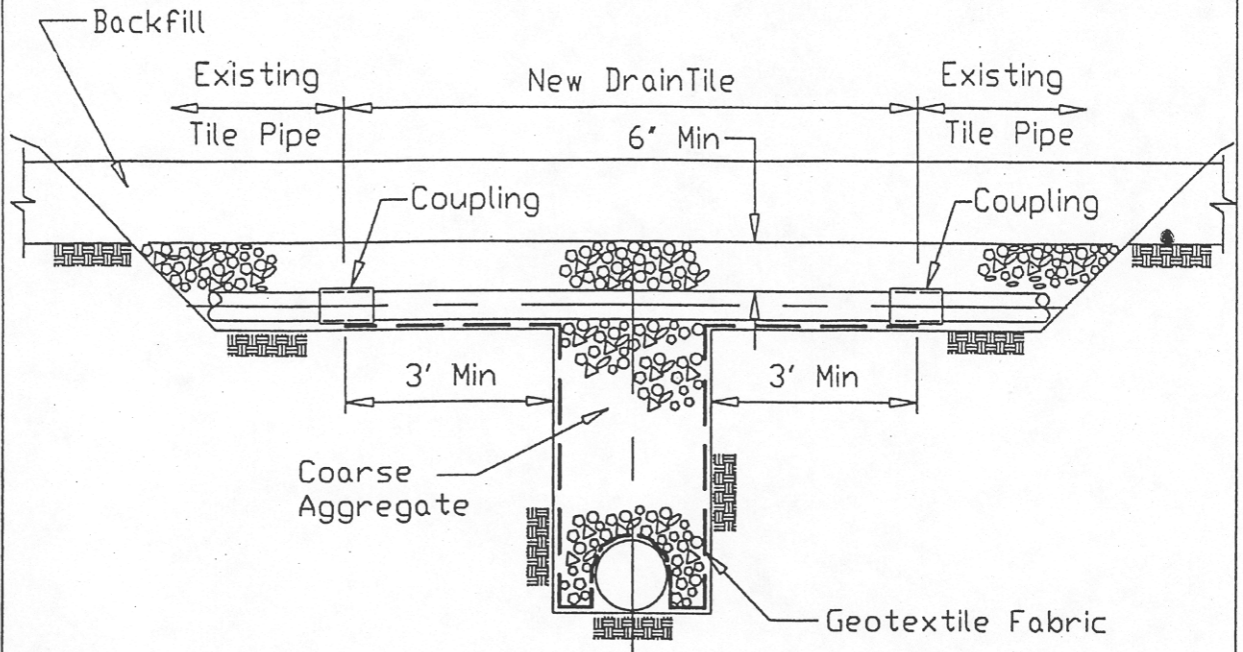
STANDARD DWG. NO.

IL-ENG-150A

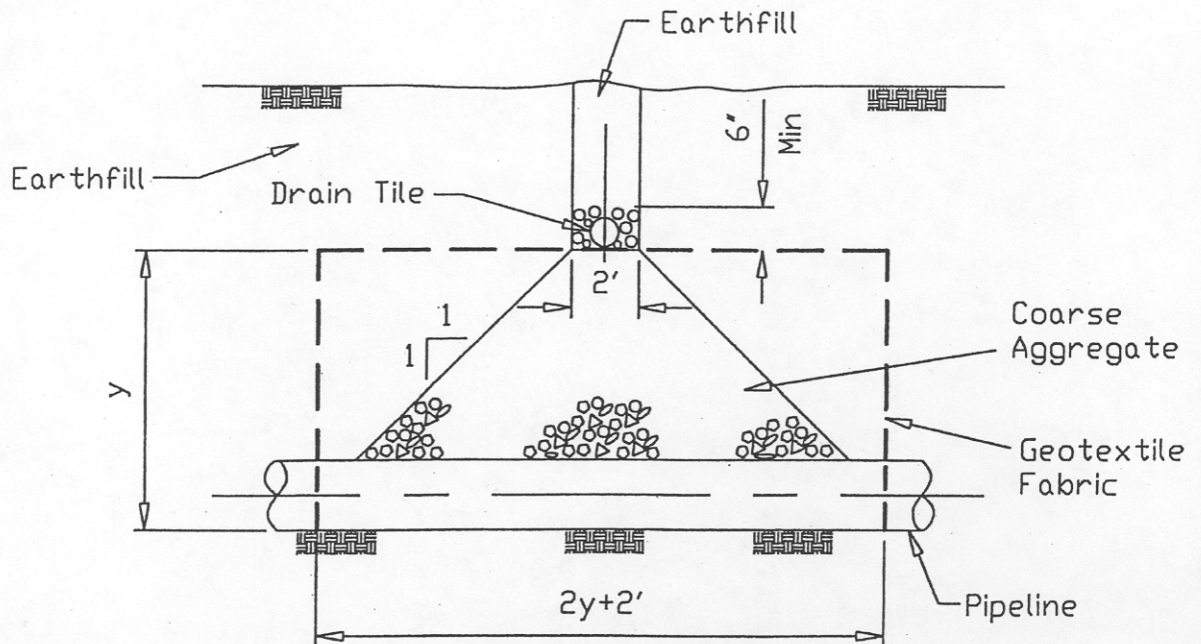
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DATE: 12/98

FIELD TILE REPAIR



SECTION A-A



SECTION B-B

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NATURAL RESOURCES
CONSERVATION SERVICE
ILLINOIS

STANDARD DWG. NO.
IL-ENG-150B
SHEET 2 OF 2
DATE: 12/98

Material Specification 592—Geotextile

1. Scope

This specification covers the quality of geotextiles.

2. General requirements

Fibers (threads and yarns) used in the manufacture of geotextile shall consist of synthetic polymers composed of a minimum of 85 percent by weight polypropylenes, polyesters, polyamides, polyethylene, polyolefins, or polyvinylidene-chlorides. They shall be formed into a stable network of filaments or yarns retaining dimensional stability relative to each other. The geo-textile shall be free of defects and conform to the physical requirements in tables 592–1 and 592–2. The geotextile shall be free of any chemical treatment or coating that significantly reduces its porosity. Fibers shall contain stabilizers and/or inhibitors to enhance resistance to ultraviolet light.

Thread used for factory or field sewing shall be of contrasting color to the fabric and made of high strength polypropylene, polyester, or polyamide thread. Thread shall be as resistant to ultraviolet light as the geotextile being sewn.

3. Classification

Geotextiles shall be classified based on the method used to place the threads or yarns forming the fabric. The geotextiles will be grouped into woven and nonwoven types.

Woven—Fabrics formed by the uniform and regular interweaving of the threads or yarns in two directions. Woven fabrics shall be manufactured from monofilament yarn formed into a uniform pattern with distinct and measurable openings, retaining their position relative to each other. The edges of fabric shall be selvaged or otherwise finished to prevent the outer yarn from unraveling.

Nonwoven—Fabrics formed by a random placement of threads in a mat and bonded by heat-bonding, resin-bonding, or needle punching. Nonwoven fabrics shall be manufactured from individual fibers formed into a random pattern with distinct, but variable small openings, retaining their position

relative to each other when bonded by needle punching, heat, or resin bonding. The use of nonwovens other than the needle punched geotextiles is somewhat restricted (see note 3 of table 592–2).

4. Sampling and testing

The geotextile shall meet the specified requirements (table 592–1 or 592–2) for the product style shown on the label. Product properties as listed in the latest edition of the "Specifiers Guide," Geotechnical Fabrics Report, (Industrial Fabrics Association International, 1801 County Road BW, Roseville, MN 55113-4061) and that represent minimum average roll values, are acceptable documentation that the product style meets the requirements of these specifications.

For products that do not appear in the above directory or do not have minimum average roll values listed, typical test data from the identified production run of the geotextile will be required for each of the specified tests (tables 592–1 or 592–2) as covered under clause AGAR 452.236-76.

5. Shipping and storage

The geotextile shall be shipped/transported in rolls wrapped with a cover for protection from moisture, dust, dirt, debris, and ultraviolet light. The cover shall be maintained undisturbed to the maximum extend possible before placement.

Each roll of geotextile shall be labeled or tagged to clearly identify the brand, class, and the individual production run in accordance with ASTM D 4873.

Table 592–1 Requirements for woven geotextiles

| Property | Test method | Class I | Class II & III | Class IV |
|---|-----------------------------|--|--|--|
| Tensile strength (pounds) ^{1/} | ASTM D 4632 grab test | 200 minimum in any principal direction | 120 minimum in any principal direction | 180 minimum in any principal direction |
| Elongation at failure (percent) ^{1/} | ASTM D 4632 grab test | <50 | <50 | <50 |
| Puncture (pounds) ^{1/} | ASTM D 4833 | 90 minimum | 60 minimum | 60 minimum |
| Ultraviolet light (% residual tensile strength) | ASTM D 4355 150-hr exposure | 70 minimum | 70 minimum | 70 minimum |
| Apparent opening size (AOS) | ASTM D 4751 | As specified, but no smaller than 0.212 mm (#70) ^{2/} | As specified, but no smaller than 0.212 mm (#70) ^{2/} | As specified, but no smaller than 0.212 mm (#70) ^{2/} |
| Percent open area (percent) | CWO-02215-86 | 4.0 minimum | 4.0 minimum | 1.0 minimum |
| Permittivity sec ⁻¹ | ASTM D 4491 | 0.10 minimum | 0.10 minimum | 0.10 minimum |

1/ Minimum average roll value (weakest principal direction).

2/ U.S. standard sieve size.

Note: CWO is a USACE reference.

Table 592–2 Requirements for nonwoven geotextiles

| Property | Test method | Class I | Class II | Class III | Class IV ^{3/} |
|---|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Tensile strength (lb) ^{1/} | ASTMD 4632 grab test | 180 minimum | 120 minimum | 90 minimum | 115 minimum |
| Elongation at failure (%) ^{1/} | ASTMD 4632 | ≥ 50 | ≥ 50 | ≥ 50 | ≥ 50 |
| Puncture (pounds) | ASTMD 4833 | 80 minimum | 60 minimum | 40 minimum | 40 minimum |
| Ultraviolet light (% residual tensile strength) | ASTMD 4355 150-hr exposure | 70 minimum | 70 minimum | 70 minimum | 70 minimum |
| Apparent opening size (AOS) | ASTMD 4751 | As specified max. #40 ^{2/} | As specified max. #40 ^{2/} | As specified max. #40 ^{2/} | As specified max. #40 ^{2/} |
| Permittivity sec ⁻¹ | ASTMD 4491 | 0.70 minimum | 0.70 minimum | 0.70 minimum | 0.10 minimum |

1/ Minimum average roll value (weakest principal direction).

2/ U.S. standard sieve size.

3/ Heat-bonded or resin-bonded geotextile may be used for classes III and IV. They are particularly well suited to class IV. Needle-punched geotextiles are required for all other classes.

4. Rock Removal

- A. The top 42 inches of a water or sewer line trench will not be backfilled with soil containing rocks that are larger than 3 inches in any dimension.
- B. If trenching, blasting, or boring operations are required through rocky terrain, suitable precautions will be taken to eliminate the potential for rocks to become interspersed with the soil material that is placed back in the trench.
- C. Rocks and/or soil containing rocks that are larger than 3 inches in any dimension must be hauled off the landowner's premises or disposed of on the landowner's premises at a location that is mutually acceptable to the landowner and the Project Sponsor.

5. Removal Of Construction Debris

All construction-related debris and material will be removed from the landowner's property. (Note: Such material to be removed would include litter generated by the construction crews.)

6. Compaction, Rutting, Fertilization, Liming

- A. When water and sewer lines are buried in trenches that are **greater than 24 inches in width**:
 - 1. Compaction will be alleviated on the trench and any adjacent work areas that are traversed by construction equipment. Cropland will be ripped at least 18 inches deep and pasture and woodland will be ripped or chiseled at least 12 inches deep.
 - 2. Any other areas of the right-of-way which are traversed by construction equipment and related vehicles will be ripped or chiseled at least 12 inches deep.
 - 3. At least 3 passes will be made over all lands to be ripped and/or chiseled.
 - 4. All cropland that has been disturbed by construction activities will be limed and fertilized where necessary in order to benefit the current and/or next year's agricultural production or vegetative cover to control soil erosion.
- B. When water and sewer lines are buried in trenches **less than 24 inches wide**, all right-of-way that has been traversed by construction equipment and related vehicles will be chiseled at least 12 inches deep with at least 3 passes being made.
- C. All ripping and chiseling will be done at a time when the soils are dry enough for normal tillage operations to occur on undisturbed cropland adjacent to the areas to be tilled.

7. Land Leveling

- A. The Project Sponsor will remain liable, for a period of two (2) years following the completion of a water or sewer line, to restore any right-of-way to its original elevation and contour should uneven settling occur or surface drainage problems develop due to inaccurate land leveling immediately following a water or sewer line's construction.
- B. The Project Sponsor will provide the landowners with a telephone number and address that may be used to alert the Project Sponsor of the need to perform additional land leveling services.

8. Prevention Of Soil Erosion

- A. The Project Sponsor will work with landowners to prevent excessive erosion on lands disturbed by construction. Reasonable methods will be implemented to control erosion. This is not a requirement, however, if the land across which a water or sewer line is constructed is bare cropland that the landowner intends to leave bare until the next crop is planted.
- B. If the landowner and Project Sponsor cannot agree upon a reasonable method to control erosion on the landowner's right-of-way, the Project Sponsor will follow the recommendations of the appropriate county Soil and Water Conservation District if the landowner so requests.

9. Repair Of Damaged Soil Conservation Practices

All soil conservation practices (such as terraces, grassed waterways, filter strips, concrete structures, dams, etc.) that are damaged by water or sewer line construction will be restored to at least their pre-construction condition.

10. Damages To Private Property

- A. With the exception of tile line repairs, the Project Sponsor will repair, replace, or pay to repair or replace damaged private property within 45 days, weather and landowner permitting, after a water or sewer line has been constructed across any affected property.
- B. Similar relief for damages will be extended by the Project Sponsor for any construction-related damages that occur off of the established water or sewer line right-of-way.
- C. The Project Sponsor will remain liable to correct damages to private property beyond the initial construction of a water or sewer line, to those damages incurred by future construction, operation, maintenance, and repairs.

11. Clearing Of Trees And Brush From The Easement

- A. If trees are to be removed from the right-of-way, the Project Sponsor will consult with the landowner to see if there are trees of commercial or other value to the landowner.
- B. If there are trees of commercial or other value to the landowner, the Project Sponsor will allow the landowner the right to retain ownership of the trees with the disposition of the trees to be negotiated prior to the commencement of land clearing.
- C. The Project Sponsor will follow the landowner's desires which are consistent with any applicable laws or ordinances regarding the disposal of trees, brush, and stumps of no value to the landowner by burning, burial, etc., or complete removal from any affected property.

12. Interference With Irrigation Systems

- A. If a water or sewer line intersects an operational (or soon to be operational) spray irrigation system, the Project Sponsor will establish with the landowner an acceptable amount of time the irrigation system may be out of service.

- B. If an irrigation system interruption results in crop damages, either on the water or sewer line right-of-way or off the right-of-way, the landowner will be compensated for all such crop damages.
- C. If it is feasible and mutually acceptable to the Project Sponsor and the landowner, temporary measures will be implemented to allow an irrigation system to continue to operate across land on which a water or sewer line is also being constructed.

13. Ingress And Egress Routes

Prior to any water or sewer line construction, the Project Sponsor and the landowner will reach a mutually acceptable agreement on the route that will be utilized for entering and leaving the water or sewer line right-of-way should access to the right-of-way not be practical or feasible from adjacent segments of the water or sewer line right-of-way or from public highway or railroad right-of-way.

14. Temporary Roads

- A. The location of temporary roads to be used for construction purposes will be negotiated with the landowner.
- B. If temporary roads must be constructed, they will be designed to not impede surface drainage soil erosion on or near the temporary roads will be minimized.
- C. Upon abandonment, temporary roads may be left intact through mutual agreement of the landowner and the Project Sponsor.
- D. If the temporary roads are to be removed, the right-of-way upon which the temporary roads are constructed will be returned to their previous use and restored to the same or better condition as existed prior to their construction.

15. Weed Control

- A. On any right-of-way over which the Project Sponsor has jurisdiction as to the surface use of such land (well heads, pump or lift stations, valve sites, etc.), the Project Sponsor will provide for weed control in a manner that does not allow for the spread of weeds onto adjacent lands used as cropland.
- B. The Project Sponsor will remain liable for the costs incurred by owners of land adjacent to surface facilities when the landowners must control weeds on their land which have spread from land accommodating water or sewer line surface facilities.

16. Pumping Of Water From Open Trenches

- A. In the event it becomes necessary to pump water from open trenches, the Project Sponsor will pump the water in a manner that will avoid damaging adjacent agricultural land. Such damages include, but are not limited, inundation of crops for more than 24 hours and the deposition of sediment and gravel in fields, pastures, ditches, and any water bodies or water courses.
- B. If it is impossible to avoid water-related damages as described in 16.A. above, the Project Sponsor will compensate the landowners for the damages or will correct the

damages so as to restore the agricultural land, water courses, etc. to their pre-existing condition.

- C. All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities, and provisions of the Clean Water Act.

17. Aboveground Facilities

Aboveground facilities shall be located so they will not be a hindrance to ongoing agricultural activities occurring on the lands adjacent to the facilities. First priority shall be made to locating aboveground facilities on right-of-way that is not used as cropland. If this is not feasible, such facilities shall be located so as to incur the least hindrance to the adjacent cropping operations (i.e., located in field corners or areas where at least one side is not used for cropping purposes).

18. Advance Notice Of Access To Private Property

- A. The Project Sponsor will provide the landowner or tenant with a minimum of 24 hours prior notice before accessing his/her property for the purpose of constructing a water or sewer line.
- B. Prior notice shall first consist of a personal contact or a telephone contact, whereby the landowner or tenant is informed of the Project Sponsor's intent to access the land. If the landowner or tenant cannot be reached in person or by telephone, the Project Sponsor will mail or hand deliver to the landowner or tenant's home a dated, written notice of the Project Sponsor's intent. The landowner or tenant need not acknowledge receipt of the written notice before the Project Sponsor can enter the landowner's property.

19. Reporting Of Inferior Agricultural Impact Mitigation Work

Prior to the installation of any water or sewer line, the landowners will be provided with a number they can call to alert the Project Sponsor should landowners observe inferior work relating to the agricultural impact mitigation work which is performed on their property.

20. Indemnification

For any water or sewer line installation, the Project Sponsor will indemnify all landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and expenses including legal fees resulting from or arising out of the construction, maintenance, removal, repair, use or existence of a water or sewer line, whether heretofore or hereafter constructed, including damage to a water or sewer line or any of its appurtenances and the leaking of its contents, except where claims, injury, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts of the landowners, their heirs, successors, legal representatives, and assigns.

Technical Specifications

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General Information

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General Information

Section 10

10.01. ABBREVIATIONS

| | | | |
|------|----------------------------------|------|----------------------------------|
| ADD | Addition | IDOA | Illinois Department of |
| AI | Area Inlet | | Agriculture |
| ANSI | American National Standards | IDOT | Illinois Department of |
| | Institute | | Transportation |
| ASA | American Standards Association | IHPA | Illinois Historic Preservation |
| ASTM | American Society for Testing and | | Agency |
| | Materials | IN | Inches |
| ATG | Adjust to Grade | INF | Inflow |
| AVE | Avenue | INV | Invert |
| AWWA | American Water Works | IPS | Iron Pipe Size |
| | Association | LA | Lane |
| BC | Back of Curb | LF | Lineal Foot |
| BM | Benchmark | MAX | Maximum |
| BK | Book | MH | Manhole |
| BLVD | Boulevard | MJ | Mechanical Joint |
| BLDG | Building | MIN | Minimum |
| BPS | Booster Pump Station | MIP | Male Iron Pipe |
| CB | County Highway Bore | N/F | Now and Former |
| CL | Centerline | NO | Number |
| CJ | Construction Joint | PG | Page |
| CONC | Concrete | PVMT | Pavement |
| CMP | Corrugated Metal Pipe | POC | Point of Commencement |
| CF | Cubic Foot | POB | Point of Beginning |
| CY | Cubic Yard | PC | Point of Curvature (Roads) |
| CI | Curb Inlet (Roads) | PC | Pressure Class (Water and Sewer) |
| CI | Cast Iron (Water and Sewer) | PE | Polyethylene |
| CIOD | Cast Iron Outside Diameter | PI | Point of Intersection |
| CTS | Copper Tube Size | PT | Point of Tangent |
| DR | Drive | PVC | Polyvinyl Chloride |
| DI | Ductile Iron | PE | Private Entrance (Roads) |
| ESMT | Easement | PE | Polyethylene Pipe |
| EJ | Expansion Joint | PL | Property Line |
| FT | Feet | PS | Pipe Stiffness |
| FES | Flared End Section | RR | Railroad |
| FB | Flat Bottom | RCP | Reinforced Concrete Pipe |
| FL | Flow Line | ROW | Right of Way |
| FIP | Female Iron Pipe | RPR | Resident Project Representative |
| GI | Grated Inlet | SAN | Sanitary |
| GST | Ground Storage Tank | SB | State Highway Bore |
| HDPE | High-Density Polyethylene Pipe | SDR | Standard Dimension Ratio |

| | | | |
|-------|---------------------------------------|-------|----------------------------|
| SF | Square Feet | TOC | Top of Curve |
| SY | Square Yard | TOA | Top of Asphalt |
| STA | Station | TBR | To Be Removed |
| SWPPP | Storm Water Pollution Prevention Plan | TBR&R | To Be Removed and Replaced |
| TB | Township Road Bore | TSM | Temporary Seed and Mulch |
| TBM | Temporary Bench Mark | UFR | Uni-Flange Restraint |
| TYP | Typical | VCP | Vitreous Clay Pipe |

10.02. AWWA SPECIFICATIONS TITLES

C-104-ANSI A21.4-Standard for Cement-Mortar Lining

C-105-ANSI A21.5-Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems

C-110-ANSI A21.10-Standard for Ductile-Iron and Gray-Iron Fittings

C-111-ANSI A21.11-Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings

C-115-ANSI A21.15-Standard for Flanged Ductile Iron Pipe with Threaded Flanges

C-150-ANSI A21.50-Standard for Thickness Design for Ductile-Iron Pipe

C-151-ANSI A21.51-Standard for Ductile-Iron Pipe, Centrifugally Cast

C-153-ANSI A21.53-Standard for Ductile-Iron Compact Fittings for Water Service

C-502-Standard for Dry-Barrel Fire Hydrants

C-509-Standard for Resilient –Seated Gate Valves for Water Supply Service

C-515-Standard for Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service

C-550-Protective Epoxy Interior Coating for Valves and Hydrants

C-606-Standard for Grooved and Shouldered Joints

10.03. DEFINED INFORMATION

OWNER – City of Greenville

Selected Granular Backfill – CA-7 or equal

Compacted Granular Backfill – CA-6 or equal and the granular materials shall be compacted by vibratory compactors of sufficient capacity to obtain a minimum of 90% of the maximum dry density at optimum moisture content as determined by Standard Test Methods for Laboratory.

Drawings – The construction drawings issued with these Specifications

Standard Drawings – Division VI Standard Drawings of the Standard Specifications for Water and Sewer Main Construction in Illinois

Standard Specifications - Standard Specifications for Water and Sewer Main Construction in Illinois

10.04. REQUIRED SUBMITTALS

On Submittals, please mark the product model number and the options and/or sizes you will be using. Also, please mark all standards required in the specifications. If the specifications are not marked up, preferably by highlighter, then they will be returned as rejected. Please provide a copy of all standards that a material references for our review and concurrence. The minimum number of submittals is 4, one for the CONTRACTOR and 3 to remain with the ENGINEER. The ENGINEER will not make copies of the submittals to return to the CONTRACTOR.

10.04.01 Water Main

Intentionally Blank

10.04.02 Elevated Tank

Intentionally Blank

10.04.03 Booster Pump Station

Intentionally Blank

10.04.04 Ground Storage Tank

Intentionally Blank

10.04.05 Water Treatment Plant

Intentionally Blank

10.04.06 Pressure Reducing Station

Intentionally Blank

10.04.07 Forced Sewer Main

| SEWER MAIN AND APPURTENANCES | | | Manufacturer | Model No. | Equal Accepted | Section | Submittal Required |
|------------------------------|---|-------------------------------|---------------------------------------|-----------|----------------|---------|--------------------|
| 1 | | Anchor Coupling | --- | --- | | | No |
| 2 | | Casing | --- | --- | | 52.06 | YES |
| 3 | | Casing Spacers | | | | 52.06 | |
| | a | Sewer main 6-inch or smaller | CCI Pipeline Systems | --- | YES | | YES |
| | b | Sewer main larger than 6-inch | Cascade Waterworks Mfg. Co OR BWM Co. | --- | YES | | YES |
| 4 | | Combination Air Release Valve | | | | | |
| | a | 2" | APCO | --- | YES | | YES |

| SEWER MAIN AND APPURTENANCES | | | Manufacturer | Model No. | Equal Accepted | Section | Submittal Required |
|------------------------------|---|---------------------------------|---|----------------------------------|----------------|---------|--------------------|
| 5 | | Copper Tracer Wire | | | | 52.05 J | |
| | a | Bores | Copperhead Industries, Inc. | 1245EHS | YES | | YES |
| | b | Trenching | Copperhead Industries, Inc. | 1430HS | YES | | YES |
| | c | Connectors | Copperhead Industries, Inc. | 3WB-01 | YES | | YES |
| 6 | | End Seals | Method to be approved by OWNER and ENGINEER | | YES | | YES |
| 7 | | Fittings | | | | 52.03 | |
| | a | Ductile Iron - Compact Fittings | Tyler/Union OR US | | NO ** | | YES |
| | b | Ductile Iron - Flanged Fittings | Tyler/Union OR US | | NO ** | | NO |
| | c | RJ-PVC Expansion Cou | | | | | YES |
| | d | PVC Fittings | | | | | YES |
| 9 | | Gate Valves | | | | | |
| | a | 3 inch to 12 inch | --- | --- | YES | 52.02 C | NO |
| | b | 14 inch and up | --- | --- | YES | 52.02 C | NO |
| 10 | | Plug Valves | | | | | |
| | a | 3 inch to 12 inch | --- | --- | YES | 52.05 D | NO |
| | b | 14 inch to 36 inch | --- | --- | YES | 52.05 D | NO |
| 11 | | Check Valves | | | | | |
| | a | Ball Check Valve | --- | --- | --- | 52.02 E | NO |
| | b | Swing Check Valve | | | YES | | YES |
| 12 | | Pipe | | | | | |
| | a | HDPE | --- | --- | | 52.03 | YES |
| | b | PVC | JM Eagle or North American Pipe Corp. | --- | | 52.03 | YES |
| | c | Restrained Joint PVC | --- | --- | | 52.03 | YES |
| | d | PE | | | | | YES |
| 13 | | Pipe Restraining Glands | | | | 52.05 I | |
| | a | PVC | Ford 1500 | --- | YES | | YES |
| 14 | | Valve Box | --- | --- | YES | 52.05 G | YES |
| 15 | | Valve Box Marker | 10' tall in fields | | | | NO |
| 16 | | Special Requirements | | | | | |
| | a | Boring Plan | | | | 55 | YES |
| | b | Seeding Mixture & Plan | | | | 32 | YES |
| 17 | | Meter Box | | All Tough Core Plus (Depth x ID) | | | |
| | a | | --- | 36" x 30" | YES | | YES |
| 18 | | Meter Lid | | | | | |

| SEWER MAIN AND APPURTENANCES | | | Manufacturer | Model No. | Equal Accepted | Section | Submittal Required |
|------------------------------|---|------------------------------|--------------|-----------|----------------|---------|--------------------|
| 19 | | Service Line Fittings | | | | | |
| | a | Saddle/Tee | | | | | YES |
| | b | Corp | | | | | YES |
| | c | Curb Stop Box | | | | | YES |
| | d | Swing Check Valve | | | | | YES |
| | e | Tracer Wire Access Box | | | | | YES |
| | f | Ball Valve | | | | | YES |

* Respectively

** no like, equivalent, or "or-equal" item or substitution permitted.

10.04.08 Gravity Sewer Main

| SEWER MAIN AND APPURTENANCES | | | Manufacturer | Model No. | Equal Accepted | Section | Submittal Required |
|------------------------------|---|-------------------------------|---|----------------|----------------|---------|--------------------|
| 2 | | Casing | --- | --- | | | YES |
| 3 | | Casing Spacers | | | | | |
| | a | Sewer main 6-inch or smaller | --- | | YES | | YES |
| | b | Sewer main larger than 6-inch | --- | --- | YES | | YES |
| 5 | | Concrete | | | | | |
| | a | Rebar | --- | --- | | 22 | YES |
| | b | Manhole Mix Design | --- | --- | | 22 | YES |
| 6 | | End Seals | Method to be approved by OWNER and Engineer | | YES | | YES |
| 7 | | Pipe | | | | | |
| | a | PVC | JM Eagle or North American Pipe Corp. | --- | | 52.03 | YES |
| | b | Restrained Joint PVC | --- | --- | | 52.03 | YES |
| | c | Ductile Iron | --- | --- | | 52.03 | YES |
| 8 | | Manhole | | | | | |
| | a | Standard Cover | Neenah OR East Jordan | R-1772 OR 1022 | NO ** | 52 | YES |
| | b | A-Lok | | | YES | | YES |
| | c | Structure | | | YES | | YES |
| | d | Floor | | | YES | | YES |
| | e | Walls | | | YES | | YES |
| | f | Lid | | | YES | | YES |
| | g | Link Seal | | | | | |
| | h | Grade Rings | | | YES | | YES |
| | i | Cone | | | YES | | YES |
| 9 | | Special Requirements | | | | | |
| | a | Boring Plan | | | | 55 | YES |
| | b | Seeding Mixture & Plan | | | | 32 | YES |
| | c | Sod | Heartland Premium Turf | Fescue Sod | YES | | |
| | d | Manhole Sealing Plan | | | | 52 | YES |

* Respectively

** no like, equivalent, or "or-equal" item or substitution permitted.

10.04.09 Grinder Pump Station

| Grinder Pump Station | | | Manufacturer | Model No. | Equal Accepted | Section | Submittal Required |
|----------------------|---|-----------------------------|--------------|-----------------|----------------|---------|--------------------|
| 1 | | Grinder Pump Station | | | | | |
| | a | Simplex | E-One | WH101-92 to 159 | YES | | YES |
| | b | Duplex | E-One | | YES | | YES |
| | c | Control/Alarm Panel | E-One | | YES | | YES |
| | d | Generator Hookup | E-One | | YES | | YES |
| 2 | | Electrical Material | | | | | YES |

* Respectively

** no like, equivalent, or "or-equal" item or substitution permitted.

General Requirements

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General Requirements

Section 15

15.01. SCOPE OF WORK

The work, as proposed, includes the furnishing of all labor, materials, equipment, transportation and performing of all operations required to construct the wastewater collection facilities (Gravity and individual Grinder Pump System) for the OWNER, all as shown on the Drawings and/or as herein specified. In case of conflict between the Drawings and these Specifications, the CONTRACTOR shall notify the ENGINEER, prior to bidding, to clarify the discrepancy and obtain a decision on which document governs. If the CONTRACTOR or any of their subcontractors fail to notify the ENGINEER prior to bidding, then the CONTRACTOR shall provide and install the intended material or equipment at no additional cost to the Contract Price.

The OWNER will continuously update the CONTRACTOR of preferred sequence before starting construction and during construction. There are a couple lines that cannot be installed during the school year. The CONTRACTOR is responsible for adjusting his schedule to meet the deadline imposed by the OWNER.

15.02. CONTRACTOR RESPONSIBILITIES

An attempt has been made to provide as much information on the Drawings as possible in regard to both existing and proposed conditions, although extreme accuracy in terms of dimensions and sizes of utilities, pumps, piping, etc., is not guaranteed. It is therefore the CONTRACTOR's responsibility to examine the Drawings, Specifications, and work site; to become familiar with the conditions and limitations applying to the work; and to verify all measurements, distances, levels, dimensions, quantities, etc., prior to making their bid, ordering materials, and/or starting work. By the act of having submitted a bid, the CONTRACTOR will be deemed to have made such examinations and verifications, and to have made allowances for such in their bid. If any major discrepancies occur between the Drawings and actual conditions, the CONTRACTOR shall notify the ENGINEER before submitting their bid and/or starting the work.

It shall be the responsibility of the CONTRACTOR to furnish and install complete and working systems to perform the intended purposes as required by the Drawings and these Specifications. The CONTRACTOR shall be responsible for all details which may be necessary to properly install, adjust, and place into operation the complete installation, and shall include the costs of all such details in the Contract Price.

The CONTRACTOR shall be responsible for all equipment and materials furnished under these Specifications and as required by the Drawings, and storage of same, within one (1) year from the date of substantial completion, in accordance with the General Conditions of this Contract. The CONTRACTOR shall replace at their expense all materials found to be defective or damaged in handling or storage. The CONTRACTOR shall, if requested by the ENGINEER, furnish certificates, affidavits of compliance, test reports or samples for check

analysis for any of the materials specified herein. The CONTRACTOR shall guarantee that the equipment furnished shall be properly installed, and when properly operated, shall perform the duty for which it is intended. They shall guarantee all materials, workmanship, and completed installation to be first class in every particular and shall, at their own expense, furnish and replace any part or parts that may prove defective in material, equipment, or workmanship within one (1) year from the date of substantial completion, in accordance with the General Conditions of this Contract.

Although they may not be specifically shown on the Drawings or called for elsewhere in the Specifications, the CONTRACTOR shall include in their bid price the cost of all fittings, piping supports, equipment, safety devices, and miscellaneous appurtenances needed to provide a secure, workable sanitary sewer system.

15.03. REGULATORY AGENCIES AND PERMITS

A. IEPA – CONSTRUCTION PERMIT

This work shall be governed by an IEPA permit for construction. This permit will be obtained for the CONTRACTOR by the OWNER before any construction operations begin.

B. IEPA – NPDES PERMIT

The erosion protection practices of this work shall be governed by a NPDES General Permit Number ILR10X014 for Construction Site Activities. The CONTRACTOR will be responsible for implementation and maintenance of all erosion control measures necessary for their respective contract. The CONTRACTOR shall familiarize themselves with the NPDES Permit and associated Storm Water Pollution Prevention Plan (SWPPP) prior to submitting their bid. The NPDES Permit and SWPPP have been included as a part of these Specifications.

Construction activities by the CONTRACTOR shall not cause any wastewater discharge which would violate the requirements of the OWNER's National Pollution Discharge Elimination System (NPDES) Permits. Accordingly, at least ten (10) days after execution of the Agreement and along with submission of their progress and shop drawings schedules, the CONTRACTOR shall submit a detailed outline of their proposed construction sequence, plus drawings showing any temporary pumping or piping installations, to assure satisfaction of this requirement; the submittal shall be subject to the approval of the OWNER, ENGINEER, and EPA. All costs for temporary piping, pumping, or any other arrangement needed to prevent violation of the NPDES Permit shall be considered incidental to the project, and as such must be included in the CONTRACTOR's bid price.

C. IHPA

The OWNER did complete a Phase I archaeological investigation reports for this project, no sites along the proposed sewer main route have been recommended for monitoring during construction. However, should any unknown significant finds be encountered

during construction, it shall be the OWNER/ ENGINEER's responsibility to contact the archaeological consultant upon notification from the CONTRACTOR, where appropriate, to provide the required monitoring, and to pay for such services. In addition, the CONTRACTOR shall include in their bid all costs associated with time delays, remobilization, etc., due to potential work stoppages associated with site avoidances or further archaeological site investigations. No additional costs will be allowed for remobilization or delays on the sewer main construction due to archaeological issues.

D. EASEMENTS

The OWNER will obtain the necessary easements. The CONTRACTOR shall familiarize themselves with all requirements of the easements.

E. ROAD PERMITS

The OWNER will obtain the IDOT Highway Permit, Bond County Highway Permit, and Central Township Highway Permit. It shall be the CONTRACTOR's responsibility to contact the city street commissioner, local township roadway commissioners, county highway engineer, and State Highway personnel to coordinate the installation of sewer mains, sewer main boring operations, etc., on public right-of-way under their jurisdiction. It shall be the CONTRACTOR's responsibility to be aware of specific roadway permits for other site-specific conditions. The CONTRACTOR shall include in their bid all costs associated with special roadway repair requirements, traffic flow requirements, construction scheduling requirements, flagmen/road signage, etc.

F. FEDERAL, STATE, AND LOCAL REGULATIONS

The CONTRACTOR is responsible for conforming to the requirements of all applicable health and safety regulations and precautions as required by local, state and federal regulatory agencies including, but not limited to OSHA and IDOL. In accordance with the requirements of the OSHA regulations for construction, the CONTRACTOR shall provide and require the use of personal protective and lifesaving equipment for all persons working in or about the Project.

15.04. COORDINATION WITH RESIDENT PROJECT REPRESENTATIVE

The CONTRACTOR shall notify the Resident Project Representative or ENGINEER of the proposed work schedule prior to each day. Any work accomplished without the Resident Project Representative being present due to improper notification, shall be re-done, re-exposed, etc., to the satisfaction of the Resident Project Representative, and shall be incidental to the Contract Price.

15.05. STANDARD SPECIFICATIONS

The Standard Specifications referenced in these specifications refer to the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois. In case of conflict with the Standard Specifications, the more stringent specification will be followed.

All sanitary sewer and sewer laterals shall be constructed in accordance with the Standard Specifications.

Sanitary sewer and water main separation shall be in accordance with Section 41-2.01 of the Standard Specifications.

All work performed shall be in accordance with the Standards of the State of Illinois Plumbing Code and all local codes.

15.06. EQUIPMENT AND PRODUCTS

Whenever equipment is identified on the Drawings or in the Specifications by reference to manufacturer's name and/or trade names, it is intended merely to establish a standard, and any equipment of other manufacturers which will perform adequately the services imposed by the general design will be considered equally acceptable provided in the opinion of the ENGINEER, the function, material, and service is equal.

The ENGINEER reserves the right to require a statement from the manufacturer of any products or equipment that the specific products or equipment have been inspected and tested and conform to the Specifications.

For the purposes of standardization all of the equipment for a single item or system shall be furnished by a single manufacturer except as noted or approved by the ENGINEER. Fabricated assemblies shall be shipped in the largest convenient section permitted by carrier regulations, and adequately match marked for proper assembly.

The CONTRACTOR shall be responsible for supplying spare equipment parts as provided in these Specifications and providing for the proper storage of same so that they are kept in operable condition.

15.07. SHOP DRAWINGS AND OPERATION AND MAINTENANCE MANUALS

The CONTRACTOR shall furnish for review complete equipment shop drawings in accordance with the General Conditions before installing any equipment. Drawings shall be provided by the equipment manufacturer and shall show all dimensions and details for correct installation of the equipment.

The CONTRACTOR shall review and approve/stamp all shop drawings for construction. Shop drawings submittals will not be accepted without these reviews. The CONTRACTOR has ultimate responsibility for all shop drawing review and approval, including sub-contractor submittals.

The CONTRACTOR must supply Operations and Maintenance manuals for all equipment.

15.08. PAYMENT FOR WATER USED

Payment for water used by the CONTRACTOR for boring operations, pressure tests, etc. shall be billed to the CONTRACTOR by the OWNER at \$9.00 per thousand gallons used.

15.09. SOIL BORING DATA

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15.10. CONTRACTOR REPRESENTATION AT MONTHLY BOARD MEETINGS

The CONTRACTOR shall have a representative present only upon request at the monthly meetings of the City of Greenville to answer questions presented by the Council during construction, and continuing through the completion of all final cleanup operations. Costs for attendance at meetings shall be incidental to the Contract Price.

15.11. OWNER'S STOP-WORK AUTHORITY

The OWNER's Public Works Director and City Manager shall have the authority to halt any work that is not being performed in accordance with the Drawings and Specifications for this project. In this event, the CONTRACTOR shall immediately stop work on the particular item until which time the Resident Project Representative or ENGINEER shall review the discrepancy, and all parties shall agree as to the proper construction method. No additional compensation shall be allowed for down time during a stop-work period initiated by the OWNER. In addition, if the CONTRACTOR fails to halt construction, they shall re-do the work properly at no additional cost to the OWNER.

15.12. COORDINATION WITH LOCAL ELECTRICAL AND COMMUNICATIONS UTILITIES

It shall be the CONTRACTOR's responsibility to contact all utilities (electrical, telecommunication, gas, etc.) to coordinate with the utility for needed services and equipment as shown on the plans and indicated in these Specifications. All work performed shall be in accordance with the standards of the National Electric Code, National Electric Safety Code and local codes.

Before ordering material and equipment, the CONTRACTOR shall determine from the local utility, which is intended to provide service for the herein described improvement, to determine that the service is available and will be supplied. Should any changes be required, the CONTRACTOR shall immediately notify the ENGINEER.

The CONTRACTOR shall further determine what service and material is being provided by the local utility, and shall include as part of their proposal the equipment to be furnished, in place, all that is necessary to make a complete electrical service from the utility, for the improvement.

The CONTRACTOR shall determine what payment if any the utility will require for providing the service requested. The CONTRACTOR shall pay all such charges by the utility, and include those charges in the bid.

The CONTRACTOR will not be entitled to any extra for payment of the charges by the utility.

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MISCELLANEOUS

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MISCELLANEOUS

Section 16

16.01. SCOPE OF WORK

The CONTRACTOR shall furnish all equipment, machinery, material, skilled labor, and tools for the complete installation of the following items of work.

16.02. NONSHRINK GROUT

This item includes furnishing, placing and finishing non-shrink grout around proposed openings for pipes in existing concrete walls and in other places as shown on the Drawings.

Non-shrink grout shall be as manufactured by Master Builders, Cleveland, Ohio 44180; the Euclid Chemical Co., Cleveland, Ohio 44110; or equal. The grout shall not shrink upon drying, shall develop high strength, have a flowable consistency, be non-staining, shall contain natural aggregate, and be similar in finished appearance to other concrete.

The non-shrink grout shall be mixed, placed and cured strictly in accordance with the manufacturer's instructions. Particular care shall be taken to follow directions regarding the amount of mixing water added, and the minimum and maximum temperatures of the pipe and wall to be grouted.

The use of non-shrink grout shall be incidental to the Contract Price.

16.03. GALVANIZING

Hinges, lag screws, staples and other hardware, shown as "galvanized" on the Drawings, shall be hot-dipped galvanized. No cutting, bending or welding shall be permitted on the galvanized items after galvanizing is complete.

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CONCRETE

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Concrete

Section 22

22.01. SCOPE OF WORK

Portland cement shall comply with the Standard Specification for Portland Cement, ASTM C150, or Standard Specification for Air-Entraining Portland Cement, ASTM C175 and shall be Type I or IA.

22.02. CONCRETE AGGREGATES

Concrete aggregates shall conform to Specifications for Concrete Aggregates, ASTM C33, except that aggregates failing to meet the specifications, but which have been shown by special test or actual service to produce concrete of the required quality, may be used under Paragraph 22.08 of this section where authorized by the ENGINEER.

22.03. WATER

Water used in mixing concrete shall be clean and free from deleterious amounts of acids, alkalis, or organic materials.

22.04. REINFORCEMENT (METAL)

Reinforcing bars shall conform to the requirements of Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement, ASTM-A-615/615M, or Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement, ASTM A996/A996M.

Welded wire fabric or cold-drawn wire for concrete reinforcement shall conform to the requirements of Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete, ASTM A1064/A1064M.

22.05. MATERIAL STORAGE

Cement, aggregates and reinforcement shall be stored at the batch plant or work site in such a manner as to prevent deterioration or intrusion of foreign matter. Any material which has deteriorated or which has been damaged shall not be used for concrete.

22.06. CONCRETE QUALITY

The allowable stresses for design are based on the specified minimum 28-day compressive strength of the concrete or on the specified minimum compressive strength at the earlier age at

which the concrete may be expected to receive its full load. The strengths of concrete at specified ages for which all parts of the structure were designed are shown on the Drawings. Where not specified in the Drawings, minimum 28-day compressive strength of the concrete shall be 3500 psi.

22.07. STRENGTH OF CONCRETE

The determination of the proportions of cement, aggregate and water to attain the required strength shall be made by one of the following methods.

Method I: When no preliminary tests of the materials to be used are made, the water content per sack of cement shall not exceed the values in the following table. Method II shall be employed when artificial aggregates or admixtures are used.

Assumed Strength of Concrete Mixtures

| <u>Water Content in U.S. Gals per Sack of Cement</u> | <u>Assumed Compressive Strength at 28-day psi</u> |
|--|---|
| 7-3/4 | 2500 |
| 6-3/4 | 3000 |
| 6 | 3500 |
| 5-1/2 | 3750 |

NOTE: In interpreting this table, surface water contained in the aggregate must be included as part of the mixing water in computing the water content.

Method II: Proportions of the materials and water content, other than those shown in the above table, may be used provided that the strength quality of the concrete proposed for use shall be established by tests, which shall be made in advance of the beginning of operations, using the consistencies suitable for the work and in accordance with Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory, ASTM C192/C192M, and with Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens, ASTM C39/C39M.

A curve representing the relation between the water content and the average 28-day compressive strength, or earlier strength at which the concrete is to receive its full working load, shall be established for a range of values including all the compressive strengths called for on the Drawings. The curve shall be established by at least three (3) points, each point representing average values from at least four (4) test specimens. Amount of water used in the concrete, as determined for a curve, shall correspond to a strength which is 15 percent greater than that called for on the Drawings. No substitutions shall be made in the materials used on the work without additional tests in accordance herewith to show that the quality of the concrete is satisfactory.

22.08. CONCRETE PROPORTIONS AND CONSISTENCY

The proportions of aggregate to cement for any concrete shall be such as to produce a mixture which will work readily into the corners and angles of the forms and around reinforcement with the methods of placing employed on the work but without permitting the material to segregate or excess free water to collect on the surface.

The combined aggregates shall be of such composition of size that when separated on the No. 4 sieve (fine aggregate) shall not be less than 30 percent or more than 50 percent of the total unless otherwise required by the ENGINEER.

The method of measuring concrete materials shall be such that the proper proportions can be accurately controlled and easily checked at anytime during the work. The received measurement shall be weight rather than volume. Measurements of materials for ready-mixed concrete shall conform to the Standard Specification for Ready-Mixed Concrete, ASTM C94/C94M.

22.09. TESTS ON CONCRETE

The CONTRACTOR shall employ and furnish an independent, qualified, testing agency, suitable to the ENGINEER and OWNER, for the purposes of all required testing of materials, certification of proper concrete placement during pour and work accomplished. All test results shall be reported to the ENGINEER and the CONTRACTOR on the same day the tests are made.

Technicians representing the testing agency shall inspect the materials and manufacture of concrete and shall report their findings to the ENGINEER and the CONTRACTOR. When it appears that the material furnished or work performed by the CONTRACTOR fails to fulfill specification requirements, the technician shall direct the attention of the ENGINEER and the CONTRACTOR to such failure.

The technician shall not act as foreman or perform other duties for the CONTRACTOR. Work will be checked as it progresses, but failure to detect any defective work or materials shall not in any way prevent later rejection when such defect is discovered, nor shall it obligate the ENGINEER for final acceptance. Technicians are not authorized to revoke, alter, relax, enlarge, or release any requirement of the specifications nor to approve or accept any portion of the work.

During the progress of the work, compression test specimens shall be made and cured in accordance with Standard Practice for Making and Curing Concrete Test Specimens in the Field, ASTM C31/C31M.

Not less than three (3) specimens shall be made for each test, or less than one (1) test for each day's pour, or for each 50 cubic yards of concrete of each class. Specimens shall be cured under laboratory conditions except that when, in the opinion of the ENGINEER, there is a possibility of the surrounding air temperature falling below 40 degrees F; the ENGINEER may require additional specimens to be cured under job conditions.

Specimens shall be tested in accordance with Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens, ASTM C39/C39M. The standard age of test shall be 7-days and 28-days.

If the average strength of the laboratory control cylinders for any portion of the structure falls below the compressive strengths called for on the Drawings, the ENGINEER shall have the right to require conditions of temperature and moisture necessary to secure the required strength and may require tests in accordance with Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concretes, ASTM C42/C42M or order load tests to be made on the portions of structure so affected.

22.10. PREPARATION OF EQUIPMENT AND PLACE OF DEPOSIT

Before placing concrete, all equipment for mixing and transporting the concrete shall be cleaned and all debris or ice shall be removed from the places to be occupied by the concrete. Forms shall be thoroughly wetted (except in freezing weather) or oiled; masonry filler units that will be in contact with concrete shall be well drenched (except in freezing weather); and the reinforcement shall be thoroughly cleaned of ice or other coatings.

22.11. MIXING OF CONCRETE

The concrete shall be mixed until there is a uniform distribution of the materials and shall be discharged completely before the mixer is recharged.

For job mix concrete, the mixer shall be rotated at a speed recommended by the manufacturer and mixing shall be continued for at least one (1) minute after all materials are in the mixer.

Ready-mixed concrete shall be mixed and delivered in accordance with the requirements set forth in the Standard Specification for Ready-Mixed Concrete, ASTM C94/C94M.

22.12. CONVEYING

Concrete shall be conveyed from the mixer to the place of final deposit by methods which will prevent the separation or loss of the materials.

Equipment for chuting, pumping and pneumatically conveying concrete shall be of such size and design as to insure a practically continuous flow of concrete at the delivery end without separation of the materials.

22.13. DEPOSITING

Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to re-handling or flowing. The concreting shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the space between the bars. No concrete that has partially hardened or been contaminated by foreign material be deposited on the work. Concrete shall not be re-tempered concrete be used.

When concreting is once started, it shall be carried on as a continuous operation until the placing of the panel or level. When construction joints are necessary, they shall be made in accordance with Paragraph 22.22, this section.

All concrete shall be thoroughly compacted by suitable means during the operation of placing. Whenever practical the concrete shall be compacted with an internal mechanical vibrator of such construction that 4,500 cycles per minute shall be transmitted to the concrete. The CONTRACTOR shall have, on the job site, a sufficient number of vibrators to insure that compaction can be started immediately after the concrete has been deposited in the forms.

The concrete shall be thoroughly worked around the reinforcement and embedded fixtures and into the corners of the forms.

Where conditions make compacting difficult or where the reinforcement is congested, batches of mortar containing the same proportions of cement to sand, as used in the concrete, shall first be deposited in the forms.

22.14. CURING

Provisions shall be made for maintaining concrete in a moist condition for at least five (5) days after the placement of the concrete. Curing may be obtained by any one of the approved "Methods of Curing" subject to approval of the ENGINEER.

No structures, structural members, or other appurtenances shall be placed upon any foundation concrete for a minimum of seven (7) days after the foundation pour is completed **and** the seven (7) day cylinder test results have been reported to the ENGINEER.

22.15. COLD WEATHER REQUIREMENTS

Adequate equipment shall be provided for heating the concrete materials and protecting the concrete during freezing or near-freezing weather. No frozen materials containing ice shall be used.

All concrete material and all reinforcement, forms, fillers, and ground with which the concrete is to come in contact shall be free from frost. Whenever the temperature of the surrounding air is below 40 degrees F, all concrete placed in the forms shall have a temperature of between 50 degrees F and 70 degrees F, and adequate means shall be provided for maintaining a temperature of not less than 70 degrees F for three (3) days or 50 degrees F for five (5) days. The housing, covering or other protection used in connection with the curing shall remain in place and intact at least 24 hours after the artificial heating is discontinued. Salt or other chemicals shall not be used to prevent freezing.

If the temperature of the surrounding air is less than 50 degrees F, the CONTRACTOR shall use a temperature recording device to record the temperature to prove the temperature was not less than 70 degrees F for three (3) days or 50 degrees F for five (5) days and provide a means to visually check the air temperature under the insulating blanket. The method for cold weather pouring and curing shall be approved by the ENGINEER and OWNER prior to concrete placement.

22.16. FORMS

Forms shall conform to the shape, lines and dimensions of the members, as shown on the Drawings, and shall be substantial and sufficiently tight to prevent leakage of mortar.

Forms shall be properly braced or tied together so as to maintain position and shape.

22.17. REMOVAL OF FORMS

Forms shall be removed in such a manner as to insure the complete safety of the structure. In no case shall the supporting forms or shoring be removed until the members have acquired sufficient strength to support safely their weight and the load thereon. In addition, forms shall remain in place a **minimum of 24 hours** after the end of the concrete pour.

22.18. CLEANING AND BENDING REINFORCEMENT

Metal reinforcement, at the time concrete is placed, shall be free from all rust, scale or other coatings that will destroy or reduce the bond.

Bends for stirrups and ties shall be made around a pin having a diameter not less than two (2) times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six (6) times the minimum thickness of the bar, except that for bars larger than one (1) inch, the pin shall be not less than eight (8) times the minimum thickness of the bar. All bars shall be bent cold.

22.19. PLACING REINFORCEMENT

Metal reinforcement shall be accurately placed in accordance with the Drawings and shall be adequately secured in position by concrete or metal chairs and spacers.

22.20. SPLICES (REINFORCEMENT)

In general, splices in area of critical stress shall be avoided. Splices shall provide sufficient lap to transfer the stress between bars by bond and shear.

22.21. CONCRETE PROTECTION OF REINFORCEMENT

The reinforcement shall be protected by the thickness of concrete as shown on the Drawings. Where not otherwise shown, the thickness of concrete over the reinforcement shall be as follows:

- A. Where concrete is deposited against the ground without the use of forms, not less than three (3) inches.

- B. Where concrete is exposed to the weather, or exposed to the ground, but placed in forms, not less than two (2) inches for bars more than five-eighths (5/8) inch in diameter and one and one-half (1-1/2) inches for bars five-eighths (5/8) inch or less in diameter.
- C. In slabs and walls not exposed to the ground or to the weather, not less than three-quarter (3/4) inch.
- D. In beams, girders and columns not exposed to the ground or to the weather, not less than one and one-half (1-1/2) inches.

In all cases, the thickness of concrete over the reinforcement shall be in accordance with ACI 318, or its latest revision. Exposed reinforcement bars intended for future use shall be protected from corrosion by concrete or other adequate coverings.

22.22. CONSTRUCTION JOINTS

Joints not indicated on the Drawings shall be so made and located as to not impair the strength of the structure. Where a joint is to be made, the surface of the concrete shall be thoroughly cleaned. In addition, vertical joints shall be thoroughly wetted and coated with a neat cement grout immediately before placing new concrete.

When deemed appropriate by the ENGINEER, the CONTRACTOR will dowel construction joints. The ENGINEER will specify the size, location, and placement.

22.23. CLEAN-UP OF FINAL SURFACES

The surface of the concrete shall be free of spalls and holes. The CONTRACTOR shall be responsible for filling in the holes with a method and materials approved by the ENGINEER and OWNER.

Any mortar that leaks through or around a form shall be mechanically removed to provide a smooth surface matching the surrounding concrete surface.

22.24. DEFECTIVE CONCRETE

If defects cannot be repaired to satisfaction of OWNER, the CONTRACTOR shall remove and replace concrete having defective surfaces. Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.

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SURFACE REPLACEMENT AND SITE WORK

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SURFACE REPLACEMENT AND SITE WORK

Section 32

32.01. SCOPE OF WORK

The CONTRACTOR's attention is called to the fact that the sewer line construction will involve public Right-of-Way and private easements and that all improvements such as drainage ditches, plantings, culverts, active utilities, signs, outbuildings, field tiles, and any other miscellaneous, privately and/or publicly owned, property shall be restored to a condition equal to or better than their existing state of repair. Should it become necessary that the CONTRACTOR relocate/remove any obstruction encountered throughout construction he should consult with the ENGINEER's Resident Project Representative (RPR) before proceeding.

Surface restoration shall be as specified in Section 32.21 of these Specifications. All surfaces shall be restored to at least the original condition prior to construction. All lawn, pasture, and timber areas that are disturbed shall be final graded, fertilized, and seeded as specified in Section 32.22 of these Specifications. A rubber-tired skid steer or similar utility tractor shall be utilized for both initial and final grading work in residential yard areas to minimize property damage; backhoes, dozers, etc., will not be allowed in yards.

Temporary seeding will be paid as specified in Section 32.23.

The CONTRACTOR shall be responsible for obtaining all material storage locations and where not stored on OWNER's property, for providing the OWNER with a signed copy of a lease agreement naming landowner as Owner and CONTRACTOR as Tenant, for any vandalism (graffiti, etc.), damage, or contamination (due to crop spraying or otherwise) that may occur and for cleanup at said sites; all incidental to the Contract Price.

At the completion of all final cleanup operations, the CONTRACTOR shall place an approved valve marker at every valve, and air release valve for ease of identification for the OWNER and system operator. This work shall be incidental to the Contract Price.

32.02. EASEMENTS

It is intended that the sanitary sewer main extension be constructed on private easements and/or within the public right-of-way. The OWNER has secured the necessary easements and these documents are on file with the OWNER. The CONTRACTOR (successful bidder) shall be furnished copies of these documents prior to construction.

Some property owners have restrictive clauses in their easement regarding trees and shrubbery, fences, private utilities, width of easement, forcing construction in road right-of-way, etc. The CONTRACTOR shall comply with these restrictive clauses. It is entirely the CONTRACTOR'S responsibility to be aware of all restrictions and easements, and no increase in the Contract Price shall be allowed for any construction methods, landowner notifications, etc., necessary to comply with the restrictions. The CONTRACTOR shall refer

to the individual easements for details regarding the restriction(s). The easements will be available for CONTRACTOR review at the Greenville City Hall and at the pre-bid meeting.

When it is necessary that the CONTRACTOR proceed across/over property supporting a growing cash crop (example: corn, legumes, soybeans, and wheat), they should so advise the ENGINEER's RPR, whereby the RPR shall note/record and make an assessment of the affected area (crop damage). When the CONTRACTOR follows the above instructions relative to reporting areas of crop damage, and adheres to other instructions by the ENGINEER's RPR and also uses good judgment, it is, therefore, the intent that the OWNER shall reimburse the property owner/renter an equitable amount for damage done by the CONTRACTOR to growing cash crops. Should, in the judgment of the ENGINEER and OWNER, it be determined that the CONTRACTOR occupied an area greater than necessary for their particular operation relative to crop damage and other construction efforts, the CONTRACTOR shall be held liable for the cost applicable to the excess area/damage caused by them. The CONTRACTOR shall apply lime and fertilizer to disturbed crop areas in accordance with Section 21 of the Standard Specifications. The same procedure, as for growing cash crops, shall be adhered to by the CONTRACTOR when it comes to ornamental trees, shrubs, flowers, fences, waterways, lawns, gardens, etc., relative to the need to affect, relocate, construct nearby, or transplant such items during the CONTRACTOR's operations. The CONTRACTOR shall be responsible and liable for all damages and claims caused by their operations to shrubs, trees, flowers, lawns, fences, gardens, orchards, nursery stock, etc., unless directed by the ENGINEER with the exceptions of growing cash crops (i.e., legumes, corn, soybeans, wheat). No additional compensation will be allowed for the above beyond the contract unit prices for the specified items of work listed in the Bid Schedule.

Agriculture field terraces shall only be crossed by a method approved by the land owner, and will be paid for at the CONTRACTOR'S unit bid price for boring or trenching of the appropriate pipe class and diameter. In the event a terrace is "accidentally" cut, either with a hoe or trencher, the terrace must be reshaped, compacted, and protected from erosion within 72 hours after the terrace is cut. All work associated with a terrace that is "accidentally" cut shall be performed by the CONTRACTOR without any increase in the Contract Price.

32.03. PUBLIC RIGHT-OF-WAY

All crossings required under existing state highways will be made by boring the sewer line.

All crossings under asphalt and Portland cement concrete will be made by boring unless called out on the Drawings or as directed by the ENGINEER and/or OWNER.

The CONTRACTOR shall familiarize themselves with and abide by all requirements as to traffic flow, flagmen, maintenance of trench, advance warning signs, etc., as required in the various county, township, and state permits. The CONTRACTOR shall execute and maintain in force, all bonds as required by IDOT, county, or township entities.

Should it become necessary to construct the sewer main on private property, the OWNER will obtain any necessary private easements.

32.04. JULIE LOCATES

It shall be the CONTRACTOR'S responsibility to locate any sewer main or service line installed as part of this project, prior to Substantial Completion. Any costs associated with these JULIE locates shall be included in the bid.

Before beginning work in an area, the CONTRACTOR shall contact JULIE at 800-892-0123 and any other non-JULIE member companies maintaining utilities, pipelines, transmission lines, and any other potential obstacles in the project area and request their assistance in field locating their utilities in that area. The CONTRACTOR, however, shall be solely responsible for the location of utilities. The utilities shown are for informational purposes only and the OWNER and the ENGINEER do not imply that the information is complete.

32.05. STRUCTURES AND UTILITIES ENCOUNTERED

Various underground and surface structures may or may not be shown on the Drawings. The location and dimensions of such structures where given do not purport to be absolutely correct. Some structures are plotted on the Drawings for the information of the CONTRACTOR but information so given is not to be construed as a representation that such structures will be found or encountered as plotted. Other structures may also be encountered which are not shown on the Drawings.

The CONTRACTOR shall maintain in operating condition all utilities encountered in this work. Any damaged existing utilities as a result of this construction shall be repaired to the satisfaction of the owner of the utility at the CONTRACTOR's expense, whether or not said utilities are shown on the Drawings. Existing utilities may be relocated with the approval of the owner of the utility. The relocation shall be at the CONTRACTOR's expense, done according to the requirements of the utility owner and shall be sufficient to clear the proposed improvement.

The CONTRACTOR shall be entirely responsible for all injuries to water pipes, electric conduits, existing drains or sewers, poles carrying currents, telephone or telegraph lines, railroad bridges and tracks, streets, pavements, sidewalks, curbs, fences, culverts, buildings, or other structures of any kind met with during the prosecution of the work, whether on public or private property.

All such structures or utilities which are removed to allow construction or damaged by it shall be restored to a condition at least equivalent to that which existed at the commencement of the work unless additional written arrangements are made satisfactory to the owner of said property. The CONTRACTOR shall care for and maintain all such structures or utilities encountered, and where service by them is interrupted, they shall provide and maintain temporary service until repair is complete and full service is restored. Repair of and restoration of service for essential structures or utilities shall be prompt; in these cases, if repair is unnecessarily delayed or unsatisfactory in the judgment of the ENGINEER, the OWNER or ENGINEER may have the repairs made and may deduct the cost thereof from payments due the CONTRACTOR. All costs associated with structure or utilities encountered, including removal, replacement, repair, temporary service, or complications to

proposed work shall be incidental to the project and shall be performed without any increase in the Contract Price.

Any field drainage tiles, drainage ditches, or storm sewers interfered with by the construction of the improvement shall be rerouted around the improvement in such a way as to maintain the drainage of areas upstream and downstream of the improvements; any such work shall be approved by the ENGINEER and shall be done by the CONTRACTOR without any increase in the Contract Price.

32.06. CLEAN UP

Due to the location of much of the work around private property and within public thoroughfares, the CONTRACTOR's attention is called to the General Conditions of these Specifications. It is imperative that the project sites be promptly maintained in a reasonably clean condition and that it not present any hazard or prolonged inconvenience to individual property owners or the public in general.

During construction the CONTRACTOR shall cleanup as the work proceeds. The premises, easements, and rights-of-way shall be kept free of accumulations of waste materials and earth, rubbish and other debris resulting from the work. The CONTRACTOR shall barricade and prevent access to all open trenches and holes by the end of each working day before leaving the site, especially along road right-of-way areas, livestock grazing areas, driveways and field entrances, and residential yard areas.

If, in the judgment of the OWNER, the CONTRACTOR fails to keep the sites clean as described hereinabove, the OWNER may halt the construction and/or construction payments until the sites have been cleaned up to the satisfaction of the OWNER. The CONTRACTOR has three (3) working days from notification from the OWNER and/or ENGINEER that the site conditions are unsatisfactory and the situation needs remedied. If, after this period of time, the brush removal is still not satisfactory, the OWNER has the right to hire an outside agency to dispose of the brush in a timely manner, and these costs shall be withheld per the General Conditions.

Final clean-up, grading, and permanent seeding shall be performed in accordance with the dates specified in Section 32.22.B.

At the completion of the project, the CONTRACTOR will remove all waste materials, rubbish and debris from and about the premises as well as all tools, scaffolding and surplus materials, and will leave the site clean and ready for occupancy by the OWNER. Pipe banding and other construction debris may not be left on top of or buried in the trench. The CONTRACTOR shall be liable for any damage caused to farms, yards, livestock, pets, equipment, etc., due to construction debris left in, on, or around the project. The CONTRACTOR will restore to their original conditions those portions of the site not designated for alteration by the Contract Documents.

Payment for cleanup will be incidental to the unit price of sanitary sewer main installation. The OWNER shall withhold a sum equal to eight (8) percent of the installed cost of all sewer main, until all final cleanup/seeding work is satisfactory. This Cleanup retainage is in addition to the standard overall project retainage, and may be used by the OWNER to hire a

local Contractor to complete any unsatisfactory cleanup/seeding work. Final Payment of the Cleanup retainage will only be approved when the OWNER is satisfied with final cleanup/seeding work.

32.07. CONSTRUCTION CLEARING

Existing trees and shrubs within private easement and right-of-way shall be protected from damage, and when such trees or shrubs are in the way of construction, the ENGINEER may recommend the CONTRACTOR prune branches interfering with the work, or remove and dispose of shrubs, or transplant trees or shrubs out of the way of the construction and the Contract Price shall not be increased for the performance of such work. The CONTRACTOR shall be liable for damage to trees and shrubs which were to have been protected as directed by the OWNER, unless such damages are determined by the OWNER to have been unavoidable, and moneys due the CONTRACTOR may be withheld to cover such damages.

All necessary work involved in the clearing of the sewer line routing, either in Public Right-of-Way or in private easements, of stumps, fences (not to be cut unless absolutely necessary and not restricted on the easement), brush, and other miscellaneous and various items of work as needed or as called for on the Drawings, or directed by the ENGINEER, shall be performed by the CONTRACTOR in a satisfactory manner and no additional compensation will be allowed over and above the unit bid price per lineal foot for sewer main installed of the various diameters, materials, and class as specified.

Trees marked on the plans to be removed, shall be removed and disposed of off-site. All stumps, fences, brush, and other miscellaneous material removed during clearing shall be properly disposed of off-site unless an agreement can be worked out between the property owner and CONTRACTOR. All arrangements made between the CONTRACTOR and landowner shall be done so in writing, signed by both the CONTRACTOR and the property owner, and a signed copy of the written arrangement shall be given to the ENGINEER. Disposal operations shall be continuous with the clearing work. Trees marked on the Drawings for removal shall be paid at the unit bid price for tree clearing.

32.08. MAILBOX RELOCATION

The CONTRACTOR shall temporarily relocate mail boxes to the opposite side of the roadway as is necessary to accommodate the construction process. As soon as is practical the CONTRACTOR shall relocate the mail box to its original location. All temporary mail box locations and permanent mail box relocations shall be done in accordance with the guidelines of and with the pre-approval of the United States Postal Service. All costs associated with relocating mail boxes, including coordination with the USPS, temporary and final relocation, shall be paid at the unit price for "Mailbox Relocation".

32.09. TRAFFIC CONTROL

When any section of road is closed to traffic, the CONTRACTOR shall provide, erect, and maintain barricades, red flags, signs and lights at each end of the closed section and at all

intersecting roads, in accordance with the Illinois Manual of Uniform Traffic Control Devices.

If during the progress of the WORK it is necessary to provide access to private property along the road, the CONTRACTOR shall provide, erect, and maintain, within the closed portion of the road, such barricades, signs, flags, and lights as may be necessary to protect the WORK and to safeguard local traffic. Trenches shall be barricaded or fenced to safeguard the public.

The cost of furnishing and maintaining barricades, warning signs, red flags, and lights as required herein shall be incidental to the Contract Price and no extra compensation will be allowed.

32.10. SIGNAGE

All traffic/street signs in conflict with construction methods shall be salvaged and re-erected. They shall be stored indoors at the contractor's shop or at a location provided by the OWNER. The signs shall then be re-erected to meet IDOT standards. All signs shall be re-erected to the original height and at the same location as found before construction began.

32.11. DEMOLITION, SALVAGE, AND ABANDONMENT

This work shall consist of the removal and satisfactory disposal of existing structures or portions thereof, as shown on the Drawings and specified herein. Removal operations, whether complete or partial, shall be conducted with the least interference to the sewer system, and shall not be started until permitted by the ENGINEER.

Materials that are to be salvaged shall be carefully inventoried, removed, and stockpiled on the site where designated by the OWNER. If the CONTRACTOR damages or destroys such material, they shall restore or replace it without additional compensation.

Piping, valves, and other miscellaneous items may be reused if specifically and individually approved by the ENGINEER. Items for reuse shall be cleaned, painted and reconditioned as required by the ENGINEER.

Materials that are not to be salvaged and stockpiled shall become the property of the CONTRACTOR, and they shall remove and dispose of the materials away from the site. The salvage value of the material shall be considered in determining the Contract Price.

Except as otherwise specified, existing structures to be demolished shall be removed to at least 2 foot below the proposed elevation shown for the subgrade or ground surface, and all portions below this elevation that interfere with construction, as determined by the ENGINEER, shall be removed.

When structures are to be partially removed, the CONTRACTOR shall be responsible for any damage done to the portions that are to remain. Old concrete or masonry shall be carefully removed by drilling, chipping, or other methods approved by the ENGINEER, leaving a surface that will permit a neat joint with new construction, or otherwise be satisfactory for the purpose intended. Expansion structures shall be as shown on the

Drawings. Where existing bars are to extend from the remaining portions of the existing structures into new construction, the concrete shall be removed, leaving the projecting bars clean and undamaged. Where projecting bars are not to extend into the new construction, they shall be cut off flush.

All broken concrete free of metal reinforcement from demolition may be disposed of as riprap where called for on the Drawings.

All existing pipe that will no longer be used shall have the ends securely grouted and sealed with a lean concrete slurry for a distance of at least 10 feet from the ends of the pipe; or the pipe ends shall be properly capped.

32.12. SITE IMPROVEMENT AND/OR REPLACEMENT

A. CULVERTS

The CONTRACTOR shall furnish and install pipe culverts as shown on the Drawings, in accordance with the Illinois Standard Specifications for Road and Bridge Construction. All pipe culverts shall be corrugated steel culvert pipe of the gage required in the Illinois Standard Specifications for Road and Bridge Construction.

Metal end sections shall be furnished and installed where required in accordance with the Standard Specifications for Road and Bridge Construction or as required by the owner of the culvert.

Any existing pipe culverts damaged by the CONTRACTOR shall be repaired or replaced in accordance with the Standard Specifications for Road and Bridge Construction and no additional compensation will be allowed.

B. RIPRAP

Riprap shall consist of clean stone or clean broken concrete. It shall be free of shale, shaly stone, and other imperfections. The majority of the riprap shall be sized between one and one-half (1-1/2) inches to six (6) inches. The largest stones shall not exceed six (6) to eight (8) inches.

Riprap shall be placed uniformly and, unless otherwise shown on the Drawings, all void spaces shall be filled with smaller stones. Riprap shall, at a minimum, be placed where shown on the Drawings and as directed by the ENGINEER. Riprap shall be installed as shown on the Drawings, except that when not shown on the Drawings, width and length dimensions shall be as required for field conditions and installation methods.

Riprap shall be paid per square yard unit price for "Riprap Removal and Replacement".

C. SOIL STABILIZATION FABRIC

The CONTRACTOR shall furnish and install on the earth subgrade where shown on the Drawings or 2' beyond trench where existing area has fabric, a nylon-polypropylene non-woven fabric to stabilize the ground surface. The fabric shall be Mirafi 500X as manufactured by Celanese Fibers Marketing Company, New York, N.Y.; Typar, Style 3401 by DuPont Company Explosives Products, Wilmington, Delaware, or equal.

Prior to placing the fabric, the subgrade shall be cleared of sharp objects which might damage the fabric. The fabric shall be unrolled directly on top of the earth subgrade. If overlapping is required to cover the area, the overlap shall be at least three (3) feet. Should the fabric be damaged during any step of installation, the torn or punctured section shall be covered by another piece of fabric cut large enough to cover the damaged area and meet the three (3) foot overlap requirement. At curves, intersections or other areas where fabric is overlapped, care shall be taken to spread the base course aggregate in the same direction as the fabric overlap. Metal tracked machinery shall not come in direct contact with the fabric.

Payment for Soil Stabilization Fabric shall be incidental to the Contract Price.

D. DRIVEWAY

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E. FENCE

The CONTRACTOR shall carefully remove and replace any fences that interfere with the sewer main installation. The fence shall be replaced to a condition equal to or better than before construction commenced. If the land owner chooses not to have the CONTRACTOR replace a section of removed fence, the CONTRACTOR shall get the landowners requests in writing with their signature and give a copy to the ENGINEER.

32.13. SITE WORK VERTICAL ELEVATION CHANGES

A. SITE EXCAVATION

1. GENERAL

Excavation shall be done to the lines and slopes shown on the Drawings. Unstable or unsuitable materials shall be removed and replaced with approved material if, in the opinion of the ENGINEER, it would be a detriment to the excavation. The CONTRACTOR will be allowed a negotiated compensation for removal and replacement of unsuitable existing earth materials below natural topsoil. The quantity for this work shall be as determined by the ENGINEER; in determining the pay quantity for this work, natural topsoil shall be considered as 12 inches thick and no additional compensation will be allowed for removal of topsoil. Unstable or unsuitable material shall be disposed of by the CONTRACTOR.

2. TOPSOIL EXCAVATION

The CONTRACTOR shall remove topsoil and soil with a high organic content from the area of immediate construction and shall stockpile it on the site for use in finish grading in accordance with Section 32.13.E.

3. BORROW EXCAVATION

Any soil in addition to that excavated at the site required to complete fill area shall be furnished by the CONTRACTOR at their expense. Borrow excavation shall not be placed in fills until the material is approved by the ENGINEER. See Section 32.13.B. Earth Fill.

4. WASTE

Any excess excavated material shall be removed from the site by the CONTRACTOR, or if permitted by the ENGINEER, wasted on the site. Areas of wasted soil shall be compacted in accordance with Section 32.13.B.4 and finish graded in accordance with Section 32.13.E.

B. EARTH FILL

1. GENERAL

This work shall consist of the construction of fills by the placement and compaction of specified or suitable materials above the natural ground or other surface.

2. SUBGRADE PREPARATION

The area upon which a fill is to be placed shall be prepared by removing all topsoil containing roots, vegetation and other deleterious materials. The surfaces of each portion of the foundation, immediately prior to placing the earth fill, shall have all water removed from depressions and shall be properly moistened and sufficiently clean to obtain a suitable bond with the earth fill. When directed by the ENGINEER, the subgrade shall be benched where fill is to be placed on a slope.

No material shall be placed in any section of the earth fill until the foundation for that section has been dewatered and suitably prepared and has been approved by the ENGINEER. When the existing earth foundation materials are determined by the ENGINEER to be suitable, the area shall subsequently be disked or otherwise scarified to a depth of at least six (6) inches and recompacted in accordance with Section 32.13.B.4 so as to assure compaction, bonding with successive lifts, and insure against a potential plane of seepage. If the existing earth foundation materials are determined by the ENGINEER to be unsuitable, the CONTRACTOR shall remove these materials and replace them with approved material as directed by the ENGINEER. The CONTRACTOR will be allowed compensation for such "Removal and Replacement of Existing Unsuitable Soils" in accordance with Section 32.13.A.1. Excessive moisture content shall not in itself form the basis for classifying a material as "unsuitable"; suitability shall be judged on the physical and chemical makeup of the material, i.e., any material which contains excessive moisture but would otherwise be suitable shall not be eligible for additional compensation.

3. EARTH FILL MATERIALS

The material for fill construction shall consist of soil which is free of roots, vegetation, frozen material, material with high organic content, and other deleterious materials. Materials determined by the ENGINEER to be unsuitable for earth fill shall be disposed of in accordance with Section 32.13.A.4. The ENGINEER shall determine which materials are suitable for earth fill and shall have the authority to designate where in the fill certain earth materials shall be placed even to the extent of locating the placement of individual loads.

4. PLACING EARTH FILLS

To achieve uniform compaction, fill material should be deposited in horizontal lifts extending the entire width and length of the fill, as far as practical, having a thickness

compatible with the equipment utilized. It is presumed the lift thickness shall not exceed 8" in loose condition unless demonstrated by the CONTRACTOR to the satisfaction of the ENGINEER that the stated compaction can be uniformly achieved with a greater thickness. Lifts shall be disked to thoroughly mix and blend the different soils or to obtain a uniform moisture content.

The moisture content of the soil, when placed, shall be within $\pm 3\%$ of the optimum moisture content of the material, except as otherwise approved by the ENGINEER, and shall be compacted to a density no less than 90% of the maximum dry density at optimum moisture content as determined by Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort, ASTM D698. The density of the compacted fill shall be determined by the independent testing agency at regular intervals. "Regular intervals" is a variable and shall be as determined by the ENGINEER for each specific fill site, depending upon the site and method of the fill operation and the degree of difficulty expected in obtaining compaction. The services, testing, and reports of the independent testing agency shall be furnished by the CONTRACTOR to the ENGINEER incidental to the cost of the Contract.

If the natural water content of the fill material does not fall within the range previously described, the CONTRACTOR shall mix, dry or moisten as necessary to achieve the specified moisture content.

The CONTRACTOR shall maintain the fill in an approved manner until the final completion and acceptance of all the work under the Contract.

C. EARTH FILL EQUIPMENT

During all earth fill operation, the CONTRACTOR shall have at the site the following pieces of equipment:

- a. Disk Harrow of the tandem type.
- b. Sheep's Foot Roller having a minimum weight of 4,000 lbs per foot of roller length when fully loaded.
- c. Hand Tamper of either the pneumatic or mechanical variety. All earth fill equipment shall meet the approval of the ENGINEER.

D. HAND COMPACTION

Fill inaccessible to compaction equipment adjacent to pipes or structures shall be compacted by hand. The soil shall meet the requirements under Section 32.13.B.3 and shall have a moisture content, when thoroughly mixed, corresponding to that specified under Section 32.13.B.4.

The soil shall be deposited in lifts not to exceed four (4) inches loose measure and thoroughly compacted over the entire lift area with a pneumatic or mechanical tamping hammer. Special precautions shall be taken to achieve the compaction required without damage to the pipe or structure. Tamping equipment shall be subject to approval by the ENGINEER.

E. FINISH GRADING

The CONTRACTOR shall grade all areas to the finish grade elevation shown on the Drawings, or as directed by the ENGINEER. If the existing surface has become hardened or crusted, it shall be disked or raked so it will blend with the topsoil.

The CONTRACTOR shall place a six (6) inch layer of topsoil on all areas to be seeded. The top three (3) inches of topsoil shall be worked to break it up into particles no larger than two (2) inches. The surface shall then be alternately raked and rolled until the soil is friable and the grades are smooth and continuous.

32.14. STRUCTURAL EXCAVATION AND BACKFILL

A. STRUCTURAL EXCAVATION

All footings shall be founded on firm undisturbed soil, and a six (6) inch minimum thickness of structural granular backfill shall be placed under all concrete bottom slabs of structures. Excavations shall be carried deep enough to permit the minimum thickness of granular material to be placed or until firm undisturbed soils are encountered, whichever requires greatest depth. For requirements for granular material, see Section 10.

In no case shall any footings be founded above those elevations shown on the Drawings. If soft or unsuitable soil is encountered at elevations where footings are to be founded, the ENGINEER may direct the CONTRACTOR to remove the unstable materials and bring the excavation to grade with fill concrete or structural granular backfill (see Section 10). Additional compensation will be made to the CONTRACTOR for such removal and replacement work as described in Section 32.13.A.1.

Excavations carried below depths shown on the Drawings shall be brought to grade by the CONTRACTOR with fill concrete or structural granular backfill. No additional compensation will be allowed for excavations carried below depth shown on the Drawings unless such excavations are ENGINEER approved "Removal and Replacement of Existing Unsuitable Soils" which will be compensated for in accordance with Section 32.13.A.1.

The excavation will be large enough to allow for installation and removal of forms. Side forms will not be required for footings or edges of base slabs below grade, provided the soil is stable and square corners and straight and plumb sides are maintained until concrete is placed and approval of the ENGINEER is obtained. All other excavation shall allow for placement and removal of forms and inspection.

Special care shall be taken not to disturb the bottom of excavations where the soil is to provide bearing for slabs, footing, etc. If the presence of subsurface water or other conditions, which may decrease the bearing strength of the foundation material, prevail then soil adequate to protect the foundation material shall not be excavated until just before reinforcing steel and concrete are to be placed. The bottom of all excavations shall be inspected and approved by the ENGINEER before the placement of any granular material, reinforcing steel, or concrete.

B. STRUCTURAL BACKFILL

No backfilling shall begin without the approval of the ENGINEER. Unless otherwise shown on the Drawings or specified herein, backfill shall be structural granular backfill except for structures on or in earthen dikes, then backfill shall be Class A compacted, select excavated earthen materials.

All form work, rubbish, bracing, and sheeting shall be removed from the excavation before any backfill is placed. The placement of backfill around structures or walls shall be done simultaneously on opposite sides in even lifts. No backfill shall be placed behind any wall until the entire main structure of which that wall is a part is complete and until all concrete in the main structure has reached its specified 28-day strength, unless approved otherwise in writing by the ENGINEER. Small flow channels and other such appurtenances will not be considered as being part of the main structure. Sloping sides of the excavation which would be liable to cause wedging action shall be stepped or serrated. Under no circumstances shall backfill be placed in water.

Around all structures where adjacent finished grade is to be exposed to the weather, backfill shall be carried to two (2) feet six (6) inches below finished grade. A two (2) foot layer of clayey soil approved by the ENGINEER shall be placed over the full area of the excavated space outside the structure, compacted, and pitched to drain water away from the structure. The area shall then be finish graded in accordance with Section 212 of the Illinois Standard Specifications for Road and Bridge Construction, unless amended herein.

Special care shall be taken in backfill adjacent to waterproofing or foundation walls to avoid damage to the waterproofing. Pipes and drains entering and leaving the structure shall be protected from settlement.

32.15. SEWER MAIN EXCAVATION

A. GRAVITY SEWER MAIN

Where a firm foundation is not encountered at the grade established, due to soft, spongy or other unsuitable soil, all such unsuitable soil under the pipe and for the width of the trench shall be removed and replaced per the recommendation of a third-party soil consultant.

The OWNER shall be responsible to set line and grade reference stakes at each manhole. The CONTRACTOR shall be responsible for checking and following said reference stakes. It will be the CONTRACTOR's responsibility to coordinate the staking activities with the OWNER. The CONTRACTOR shall provide a minimum of one week (seven (7) days) notice to the ENGINEER prior to the start of construction to allow the ENGINEER to begin the sewer main staking operations. Once the staking has been completed, it shall be the CONTRACTOR's responsibility to protect the stakes and the information contained at each station. If the CONTRACTOR requests that any part of the staking operation be redone for any reason, the restaking efforts will be performed at the CONTRACTOR's expense per Article 15 of the General Conditions.

The CONTRACTOR shall use a laser as a guide for construction. The CONTRACTOR shall check their grade as construction progresses to assure that their work is on line and grade. Any discrepancies from the Drawings shall be corrected by the CONTRACTOR. The CONTRACTOR shall record the measurements of actual sewer main invert elevations at manholes and between manholes at the end of every 4th pipe, providing the record information to the RPR daily.

The CONTRACTOR shall dig out around the bell of the sewer main to allow the entire length of the pipe to lay on a firm foundation.

B. FORCE MAIN

The trench shall be excavated so that the sewer main will have a minimum of 42 inches of cover, unless a road or easement permit requires a greater depth. The profile shall be generally followed to minimize the number of air release valves. The depth of utility lines is approximate. The CONTRACTOR shall adjust the force main depth as necessary to limit the number of air release valves. Depth of cover shall be taken every 100 feet, providing the record information to the RPR daily.

32.16. ROCK EXCAVATION

Rock excavation includes removal and disposal of rock material encountered that cannot be removed by conventional methods. Rock material includes boulders ½ Cu. Yd. or more in volume, and rock in beds, ledges, unstratified masses, and conglomerate deposits. When excavation of the rock material requires systematic use of pneumatic or hydraulic tools or a rock trencher, rock excavation shall be allowed under guidelines of this section of these specifications and Section 20-5 of the Standard Water and Sewer Specifications, and paid for at the rate specified in the Bid Schedule. Shale, boulders (less than ½ Cu.Yd. in size), sandstone, gravel, and similar rocky material that can be removed by conventional methods **WILL NOT** be considered as rock excavation nor allowed for payment.

Where blasts are made, the excavation shall be covered with brush, timber, or matting to prevent danger to life and property, and the CONTRACTOR shall secure a special permit from the local governmental authorities for blasting when required. Care shall be taken not to damage adjacent structures, property, or site improvements; or weaken the bearing capacity of rock subgrade when using explosives. Before starting work in areas where rock excavation will be required, the existing condition of adjoining properties shall be verified. Photographs shall be taken to record any existing settlement or cracking of structures, pavements, and other improvements. A list of such damages shall be prepared, verified by dated videos and signed by the CONTRACTOR and others conducting the investigation.

For sewer main excavations for PVC pipe up to 12 inches in diameter, rock shall be excavated to a width of at least 18 inches more than the inside diameter for PVC pipe, for the entire depth of the excavation. Rock excavation for pipe will be at least six (6) inches below the bottom of the pipe and at least three (3) inches below the bottom of the bell of a joint. For sewer main excavations for PVC pipe 14 inches in diameter and greater, rock shall be excavated to a width of at least 24 inches more than the inside diameter for PVC pipe, for the entire depth of the excavation. Rock excavation for pipe will be at least nine (9) inches

below the bottom of the pipe and at least six (6) inches below the bottom of the bell of a joint. Before the pipe is laid, the base of the excavation shall be replaced with a cushion of SELECT GRANULAR BACKFILL. All irregularities of the rock are to be filled with compacted granular backfill as well. In addition, "soft" rock (i.e., rock not allowed for payment as rock excavation, but that can be removed by conventional methods) shall be properly bedded with a cushion of SELECT GRANULAR BACKFILL, to avoid rough edges or other irregularities from damaging the sewer pipe.

The CONTRACTOR, on encountering rock via the trenching/open cut method, shall sufficiently uncover various spot locations to assure the overall extent of rock in that particular location. The CONTRACTOR, on encountering rock via the directional boring method, shall sufficiently prove the overall extent of rock in that particular location by either accurate records of the pressure at the bore head or uncovering spot locations as directed by the ENGINEER/OWNER. In either case they shall immediately notify the ENGINEER/OWNER, who either (1) will approve rock excavation in that area as necessary, or (2) will provide the CONTRACTOR with an alternate sewer line routing which could produce a location that eliminates the necessity of all/part of the rock excavation.

The CONTRACTOR must understand that if it is the ENGINEER'S/OWNER'S decision to relocate the sewer main to avoid the encountered rock, a reasonable time lapse to obtain alternate routing would be necessary. All direct costs involved in re-routing of the sewer line to a different location to avoid rock excavation will be borne by the OWNER.

It shall be the CONTRACTOR's responsibility to dispose of all excavated rock off site, to clean up debris, and to provide earthen or granular backfill to replace that rock material removed. This work is included in the unit price for Rock Excavation. The CONTRACTOR has five (5) working days from original excavation to remove the rock off site. If after this period of time the rock is not removed from the site, the OWNER has the right to hire an outside agency to remove the rock in a timely manner and these costs shall be withheld from the final Cleanup/Seeding retainage funds.

Rock excavation by the trenching/open cut method shall be paid for at the contract unit price per cubic yard determined by measuring the average length, width, and depth of the area of rock removal. However, the OWNER will pay for no more than 48 inches plus the I.D. of the sewer main for trench width, whether in rock or in a combination of rock and earth. In addition, only Rock Excavation as defined above will be included in the measurement for a particular vertical and/or horizontal profile (i.e., soil or soil/rock material overlaying, intermixed with, or underlying solid rock will not be included), even if a rock trencher is utilized for the area of removal in question.

Rock Excavation by the directional boring method shall be paid for at the contract unit price per cubic yard determined by measuring/estimating the average volume (diameter of rock cutter & estimated length of rock) of the rock removal. However, the OWNER will pay for no more than 1.3 times the diameter of the pipe. In addition, only Rock Excavation as defined above will be included in the measurement for a particular vertical and/or horizontal profile (i.e., soil or soil/rock material overlaying, intermixed with, or underlying solid rock will not be included), even if a rock cutter is utilized for the area of removal in question.

Once the quantity for rock excavation for a particular area has been measured in the field and submitted by the CONTRACTOR and approved for payment by the OWNER, the CONTRACTOR waives any and all rights to request a change in the quantity in the future.

32.17. DEWATERING

The CONTRACTOR shall, at all times, during construction, provide and maintain ample means and devices with which to promptly remove and properly dispose of all water entering the excavation in a manner that will keep the excavation dry and foundation bearing areas undisturbed until the structure is complete and all backfill has been placed. No extra compensation for dewatering or drainage necessary to meet this specification will be allowed.

Sumps, if used, shall be located outside of load bearing areas and at such distance that the bearing surfaces will not be damaged. Water containing silt in suspension shall not be pumped into any sewer lines or discharged to state waters.

If well pointing or the installation of temporary drains are required to complete the work, they shall be provided by the CONTRACTOR.

32.18. TRENCH PROTECTION

Trench protection shall be in accordance with Section 20-4.03 of the Standard Specifications. Where construction is in close proximity to existing utilities and structures, proper excavation support systems shall be used to prevent any damage caused by excavation.

The CONTRACTOR shall furnish, install and remove all shoring, bracing, sheet piling, shielding, or other required work necessary to retain banks of excavation, prevent cave-in of adjacent ground, and support and prevent displacement of adjacent structures of piping. All trench protection shall be maintained in good condition and removed when no longer required. The CONTRACTOR shall make good any injury or damage resulting from failure of the shoring system or from not observing these requirements.

The CONTRACTOR is responsible for obtaining and the cost of a Illinois Licensed Professional Engineer to design trench protection per any State, Local, or per OSHA requirements. The price shall be included in the Contract Price.

32.19. SEWER MAIN BACKFILL

A. GENERAL

1. RIGID PIPE (DUCTILE IRON, CAST, CONCRETE, VCP, STEEL)

All Rigid Pipe shall be installed using Class B Bedding and Encasement per ASTM C12 summarized in below.

2. FLEXIBLE PIPE (HDPE, PVC, PE)

All Flexible Pipe shall be installed using Class II Bedding and Encasement per ASTM D2321 summarized in below.

B. TERMINOLOGY

1. FOUNDATION

As needed or required due to soft or unstable soils. The depth and backfill material shall be designed by a third-party soil consultant.

2. BEDDING

The depth shall be as shown on the plans. The material shall be based on backfill method used described below for rigid or flexible pipe.

3. HAUNCH ZONE

This zone begins at the bottom of the pipe to the springline of the pipe. The material shall be based on backfill method used described below for rigid or flexible pipe.

4. PIPE ZONE

This zone goes from the springline of the pipe to a height above the pipe as shown on the plans. The material shall be based on backfill method used described below for rigid or flexible pipe.

5. TRENCH ZONE

This zone begins at the top of the Pipe Zone and extends to the Surface Zone as shown on the plans. The material shall be based on type of existing surface and Section 32.20 below.

6. SURFACE ZONE

This zone begins at the top of the Trench Zone to finished grade. The depth as shown on the plans. The material shall be based on type of existing surface and Section 32.20 below.

7. SUITABLE INITIAL BACKFILL MATERIAL

Finely divided material free of debris; organic material; frozen material; and stones and clods larger than 3" in any dimension.

8. NOTE 1

Sufficient crushed stone or Select Granular Backfill shall be placed so that the bedding extends to a horizontal plane at the selected top of that layer of material.

C. BACKFILL CLASS A FOR RIGID PIPE

1. FOUNDATION

See 32.19.B.1

2. BEDDING AND HAUNCH ZONE

Shall be concrete with a thickness below the pipe a minimum of 4 inches, or diameter divided by 4, or as shown on the plans, whichever is greater. The width shall be a

minimum of 4 inches on each side or diameter divided by 4 on each side, whichever is greater. It shall also include welded wire mesh near bottom of pipe.

3. PIPE ZONE

Select Granular Backfill and per Section 32.19.B.8.

D. BACKFILL CLASS B FOR RIGID PIPE

1. FOUNDATION

See 32.19.B.1

2. BEDDING AND HAUNCH ZONE

Shall be Select Granular Backfill and Note 1. with a thickness below the pipe a minimum of 4 inches or diameter divided by 8, or as shown on the Drawings, whichever is greater.

3. PIPE ZONE

The material shall be Suitable Initial Backfill Material and per Section 32.19.B.8.

E. BACKFILL CLASSES IA, IB, II, III FOR FLEXIBLE PIPE

1. FOUNDATION

See 32.19.B.1

2. BEDDING AND HAUNCH ZONE

Shall be Select Granular Backfill and Note 1. with a thickness below the pipe a minimum of 4 inches or diameter divided by 8, or as shown on the plans, whichever is greater.

3. PIPE ZONE

The material shall be Select Granular Backfill and per Section 32.19.B.8.

F. TRENCH ZONE ALL BACKFILL CLASSES FLEXIBLE AND RIGID PIPE

- a. Improved Surface – Select Granular Backfill.
- b. Unimproved Surface within two feet of improved surface - Select Granular Backfill.
- c. Unimproved Surface - Excavated material free of rocks or stones larger than 3” in any dimension, debris, frozen material, and organic material.

G. SURFACE ZONE ALL BACKFILL CLASSES FLEXIBLE AND RIGID PIPE

- a. Improved Surface – Select Granular Backfill and/or surface replacement per Section 1.
- b. Unimproved Surface within two feet of improved surface – Existing top soil free of rocks or stones larger than 3” in any dimension, debris, frozen material, and organic material.
- c. Unimproved Surface – Existing top soil free of rocks or stones larger than 3” in any dimension, debris, frozen material, and organic material.

H. PAYMENT

1. FOUNDATION

Rock Material will be paid per cubic yard as measured in the field per the Bid Item “Sewer Main Foundation”.

2. BEDDING, HAUNCH ZONE, AND PIPE ZONE

Incidental to the Contract Price including disposal of any excavated material.

3. TRENCH ZONE

- a. Improved Surface – This backfill will be paid per cubic yard per contract unit price “Select Granular Backfill” as measured in the field, with maximum width per details in the Drawings and depth for Trench and Surface Zones and including disposal of any excavated material.
- b. Unimproved Surface within two feet of improved surface – This backfill will be paid per cubic yard per contract unit price “Select Granular Backfill” as measured in the field, with maximum width per details in the Drawings and depth for Trench and Surface Zones and including disposal of any excavated material.
- c. Unimproved Surface - Incidental to the Contract Price including disposal of any excavated material.

4. SURFACE ZONE

- a. Improved Surface – Surfaces paid per Section 32.21 and including disposal of any excavated material.
- b. Unimproved Surface - Incidental to the Contract Price including disposal of any excavated material.

32.20. UNSUITABLE BACKFILL MATERIAL

Where there is a deficiency of suitable backfill material due to a rejection of part or all of the excavated material as unsatisfactory for backfill purposes, the CONTRACTOR shall furnish satisfactory backfill material wasted from trench excavation in other locations or from other sources furnished by the CONTRACTOR.

The CONTRACTOR shall be responsible for disposal (hauling away) of any/all unsuitable backfill material that may not be utilized on the job site. The CONTRACTOR has five (5) working days from original excavation to remove the unsuitable backfill material off site. If after this period of time the unsuitable backfill material is not removed from the site, the OWNER has the right to hire an outside agency to remove the unsuitable backfill material in a timely manner and these costs shall be withheld per Article 15.E of the General Conditions of these Specifications.

Backfill furnished and work performed (including disposal operations) under these circumstances shall be paid for at the contract unit price per Cubic Yard for “Unsuitable Backfill Material”, as determined by measurement in the field with maximum trench width as

specified on the Drawings and excluding the following areas, bedding, haunch zone and pipe zone.

32.21. SURFACE REPLACEMENT

A. GENERAL

Restoration of surfaces shall include the removal of the existing surface, the disposal of surplus material, and the construction of new surfaces as indicated on the plans or specifications. The type of surface restoration required shall be shown on the plans.

The maximum trench width shall be as follows:

Five (5) feet deep and less, without protection -twelve (12) inches on each side of pipe

Five (5) feet deep and less, with protection -twenty-four (24) inches on each side of pipe

Greater than five (5) feet – twenty-four (24) inches on each side of pipe

B. UNIMPROVED SURFACE

1. GENERAL

Where sewer mains are crossing open areas where early settlement is not critical, backfill shall be made by any acceptable method which will not dislodge or damage the pipe or cause bridging action in the trench. Excavated material or material from other sources furnished by the CONTRACTOR. Excess material shall be neatly rounded over the top of the trench as directed by the ENGINEER to allow for settlement of the trench. In final cleanup operations, the CONTRACTOR shall reshape the surface to level out any uneven settlement that has occurred.

2. PAYMENT

Payment backfill is incidental to the Contract Price.

C. REMOVAL OF PAVEMENT, SIDEWALK, DRIVEWAY, AND CURB

1. GENERAL

Wherever the pipe is located along or across an improved surface, the width of the trench shall be held as nearly as possible to the maximum width specified above in section 31.21.A. Where brick or concrete pavement, sidewalk, driveway or curbing is cut, the width of the cut shall exceed the actual width of the top of the trench by twelve (12) inches on each side or a total of two (2) feet. Exposed surfaces of Portland cement, oil and chip surface, asphalt, or asphaltic concrete shall be cut with a pavement saw before breaking. Care shall be taken in cutting to insure a straight joint is sawed.

2. PAYMENT

Work under this section is incidental to the Contract Price.

D. TEMPORARY SURFACE HOT MIX ASPHALT PAVEMENT OR BITUMINOUS TREATED SURFACE

1. GENERAL

Wherever pipes are constructed under traveled roadways, driveways, sidewalks, or other traveled surfaces, a temporary surface shall be placed over the top of the excavation within one week. The temporary surface shall be 6-inches of "Cold Patch". The top of the temporary surface shall be smooth and meet the grade of the adjacent undisturbed surface. The temporary surface shall be maintained at the CONTRACTOR'S expense until final restoration of surface is completed as specified. The CONTRACTOR is required to inspect all temporary surfaces every Friday and after all rains. The temporary surfacing shall be required over the entire width of the excavation but any width in excess of the specified width shall not be used in computing payment quantities.

2. MEASUREMENT

Except as otherwise shown on the plans or directed by the ENGINEER, payment quantities for temporary surfaces shall be measured based off the actual or maximum width shown on the Drawings, whichever is less. Where the items are at a greater distance from the trench, any damage shall be replaced at the CONTRACTOR'S expense.

3. PAYMENT

Cost of furnishing, placing and maintaining and removing the rock surface as described will be paid for at the CONTRACT unit price per square yard for "Temporary HMA Surface".

E. TRENCH INSTALLED UNDER ROCK DRIVEWAY, ROAD, AND PARKING LOT

1. GENERAL

Wherever pipes are constructed under rock roadways, driveways, sidewalks, parking lots, or other rock surfaces, the Surface Zone shall be filled with Compacted Rock Backfill. The top of the trench surface shall be smooth and meet the grade of the adjacent undisturbed surface. The CONTRACTOR is required to inspect and add Compacted Rock Backfill, as required, every Friday and after all rains. The temporary surface shall be maintained at the CONTRACTOR'S expense until the end of the warranty period.

2. MEASUREMENT

Measurement for payment purposes will be computed by using the actual length, width, (maximum width as specified in the plan details) and 6-inches of depth of the trench for which rock surface is placed.

3. PAYMENT

Cost of furnishing, placing and maintaining and removing the rock surface as described will be paid for at the CONTRACT unit price per cubic yard for "Select Granular Backfill".

F. REPLACEMENT OF PERMANENT TYPE PAVEMENT, SIDEWALKS, CURBS, GUTTERS, AND STRUCTURES

1. GENERAL

The CONTRACTOR shall restore (unless otherwise specified or ordered by the ENGINEER) all permanent type pavements, sidewalks, driveways, curbs, gutters, shrubbery, fences, poles and other property and surface structures removed or disturbed during or as a result of construction operations to a condition which is equal in appearance and quality to the condition that existed before the WORK began. The surface of all improvements shall be constructed of the same material and match in appearance the surface of the improvement which was removed.

2. P.C. CONCRETE PAVEMENT SURFACE

Where the existing pavement surface is Portland Cement Concrete, The pavement replacement shall consist of ten (10) inch unreinforced P.C. concrete pavement unless otherwise indicated on the plans. The ENGINEER can choose to match existing concrete thickness and reinforcement and require the new surface to be "doweled" to existing concrete pavement. Portland Cement concrete shall conform to the applicable provisions of these specification and shall have a compressive strength of thirty-five hundred (3,500) pounds per square inch at twenty-eight (28) days. Construction methods for Portland Cement Concrete pavement shall conform to the current requirements of the "Standard Specifications for Road and Bridge Construction" of the IDOT for Portland Cement Concrete pavement. Pavement joints in the replacement surface shall conform to and match the joints in the adjacent pavement area.

3. HOT MIX ASPHALT PAVEMENT SURFACE – RIGID BASE

Where the existing pavement surface is hot mix asphalt and the base consists of a rigid material such as brick, Portland Cement Concrete, soil cement, natural cement or a combination of these materials, the base replacement shall consist of eight (8) inch (200 mm) Portland Cement concrete base course unless otherwise indicated on the plans. Portland Cement concrete shall conform to applicable provisions of these specifications and shall have a compressive strength of thirty-five hundred (3,500) pounds per square inch at twenty-eight (28) days. Construction methods for Portland Cement Concrete base course shall conform to the current requirements of the "Standard Specifications for Road and Bridge Construction" of the IDOT for Portland Cement Concrete base course. The surface replacement shall consist of a bituminous prime coat and two (2) layers one and one half (1-1/2) minimum thicknesses totaling a three (3) inch minimum thickness hot mix asphalt surface course conforming to the IDOT current "Standard Specifications for Road and Bridge Construction" for Hot Mix Asphalt Surface Course. The CONTRACTOR shall submit a mix design to the ENGINEER for approval. The mix design shall have been used and approved on an IDOT project. The ENGINEER can choose to match existing concrete thickness and reinforcement and require the new surface to be "doweled" to existing concrete pavement and minimum (2) layers of Hot Mix Asphalt meeting existing thickness.

This work shall be completed within two weeks of disturbance if HMA is available, otherwise see 32.21.D, unless OWNER agrees in writing with CONTRACTOR to wait till end of the project.

4. HOT MIX OR BITUMINOUS TREATED SURFACE OVER A FLEXIBLE BASE.

Where the existing pavement is hot mix asphalt or bituminous surface treatment and the base consists of a flexible material such as gravel or crushed stone, the base replacement shall consist of a minimum of eight (8) inch compacted thickness of material unless otherwise indicated on the plans and shall conform to either one of the following course aggregate materials as described in the IDOT "Standard Specifications for Road and Bridge Construction."

- a. CA6
- b. CA9
- c. CA10

Placing and compacting of the base course material shall conform to the methods described in the above-referenced specifications for aggregate base course. The surface replacement shall consist of a bituminous prime coat and a two (2) layer hot mix asphalt surface plant mix totaling three (3) inches in thickness conforming to the IDOT "Standard Specifications for Road and Bridge Construction".

This work shall be completed within two weeks of disturbance if HMA is available, otherwise see 32.21.D, unless OWNER agrees in writing with CONTRACTOR to wait till end of the project.

5. BRICK PAVEMENT SURFACE

Unless otherwise specified, when the existing pavement includes a brick surface, replacement shall consist of ten (10) inches Portland Cement Concrete pavement as previously described. When actual brick pavement is specified, it shall consist of the following:

An eight (8) inch Portland Cement Concrete base reinforced unless otherwise indicated on the plans. Portland Cement Concrete shall conform to applicable provisions of these specifications and shall have a compressive strength of thirty-five hundred (3,500) pounds per square inch in twenty-eight (28) days. Construction methods for Portland Cement Concrete base shall conform to the current requirements of the IDOT's "Standard Specifications for Road and Bridge Construction" for Portland Cement Concrete base course.

A three-fourth (3/4) inch sand cushion.

Brick wearing surface. Sound brick which is removed shall be cleaned and reused. When additional bricks are required they shall conform as is reasonably possible, to the color, size and quality of existing brick. Jointing material for brick wearing surface shall be the same as used in the adjacent existing brick surface. The finished surface shall be smooth, well designed, and meet the grade of adjacent existing surfaces.

6. CONCRETE SIDEWALKS, DRIVEWAYS, CURB, CURB AND GUTTER, AND STEPS

Where necessary or shown on the plans, to remove and replace concrete sidewalk, driveways, curb and curb and gutter, replacements shall be made as follows:

Concrete sidewalks, driveways, curbs and curb and gutter shall be replaced with concrete meeting the applicable provisions of these specifications and having a compressive strength of not less than thirty-five hundred (3,500) pounds per square inch at twenty-eight (28) days. Minimum thickness shall be the greater of existing surface or four (4) inches for sidewalks and six (6) inches for driveways unless otherwise indicated on the Plans. Walks on slopes 10:1 or steeper shall be constructed with steps conforming to the slope. The steps shall have a six (6) inch riser and a twelve (12) inch minimum tread. Public sidewalks shall be replaced with sidewalks and ramps in full compliance with all ADA regulations. CONTRACTOR is responsible for any redesign needs to ensure the replacement sidewalk/s is/are in full compliance with all current ADA requirements including transition to existing sidewalk. This work shall be included in the contract bid price for "Sidewalk Removal and Replacement". No additional compensation will be allowed. Sidewalks shall be finished to match existing adjacent sidewalk surfaces, unless otherwise specified or directed by the ENGINEER.

Curb or curb and gutter dimensions and cross-sections shall conform, as nearly as possible, with the existing installations. One-half (1/2) inch preformed expansion joints shall be placed at intervals not exceeding fifty (50) feet and at the junctions with existing work or as shown on the plans. This work shall be included in the contract bid price for "Curb and Gutter Removal and Replacement".

Concrete mix, reinforcement, base, contraction joints, and curing shall conform to the current requirements of the IDOT's "Standard Specifications for Road and Bridge Construction" for Portland Cement Concrete base course.

7. BRICK SIDEWALKS AND DRIVEWAYS

Brick sidewalks or driveways shall be replaced with brick, using salvaged materials that're in good condition. Where shown on the plans, or directed by the ENGINEER, brick sidewalks or driveways shall be replaced with concrete in accordance with Section 31.21.F.6, in which case payment shall be made at the unit prices bid for concrete sidewalk or driveway replacement.

8. MEASUREMENT

Removal and replacement of permanent pavements, driveways, and sidewalks will be measured for payment in square yards.

Removal and replacement of curb, or curb and gutter, crossing a pipe will be measured for payment in feet. The length will be measured along the flow line of the curb, or curb and gutter, and will be limited to the distance specified in Section 31.02.A.

Except as otherwise shown on the plans or directed by the ENGINEER, payment quantities for sidewalk; driveways; pavement; curb; and curb and gutter shall be

measured based off the actual or maximum width shown on the Drawings, whichever is less. Where the items are at a greater distance from the trench, any damage shall be replaced at the CONTRACTOR'S expense. Where sidewalk parallel to a proposed pipe line is to be removed and replaced, the ENGINEER will determine the extent of such removal and replacement. The CONTRACTOR may elect to construct the conduit in a tunnel with the approval of the ENGINEER. In such an event, he/she shall be compensated by payment of the amounts of driveways, sidewalks, or curbs and gutters which would have been measured for payment had open cut methods been employed.

9. PAYMENT

Payment for "Removal and Replacement of Permanent Type Pavements and Driveways" will be made at the CONTRACT unit price per square yard for either "Bituminous Pavement Removal and Replacement" or "Portland Cement Concrete Removal and Replacement. Payment for removal and replacement of concrete or brick sidewalk will be made at the CONTRACT Unit price per square foot for "Sidewalk Removal and Replacement". Payment for removal and replacement of concrete curb or concrete curb and gutter will be made at the CONTRACT unit price per foot for "Curb and Gutter Removal and Replacement".

32.22. LANDSCAPING

A. GENERAL

The CONTRACTOR shall be responsible for the repair of any damage to structures or equipment resulting from landscaping operations, and shall remove excess soil and other debris from the site before final acceptance of the project.

The CONTRACTOR is responsible for keeping all plants in good growing condition until final acceptance of the project, including watering as necessary for seed germination and continued plant growth. Non-potable water may be used.

Plants that die before final acceptance must be replaced. The cost of replacement plants shall be borne by the CONTRACTOR except for replacement for loss from vandalism or physical damage by animals, fire, etc., or losses due to "Acts of God".

B. PERMANENT SEEDING EXCLUDING SOD

The work shall consist of furnishing all labor, equipment, and materials for seeding a permanent grass mixture on all road ditches, structure sites, permanent pasture, and all Crop Reduction Plan acreage within the work area limits which are disturbed during completion of work. The surfaces of earthen embankments shall also be seeded when necessary. Permanent seeding shall be completed within 60 days of connection of homes to the Greenville Sanitary Sewer System. Failure to meet these guidelines will result in Liquidated Damages being assessed against the CONTRACTOR, at the established daily rate.

1. FERTILIZER

The CONTRACTOR can choose to either:

- a. Take a minimum of one soil sample for every 1000 lineal feet of sanitary sewer main installed to be tested by the Soil and Water Conservation to determine the amount of fertilizer actually needed at the CONTRACTOR's expense.
- b. Add fertilizer in the amounts listed in the following paragraphs.

Immediately prior to seeding preparation, fertilizer shall be placed over the areas to be seeded. The fertilizer shall be a complete commercial fertilizer of organic base containing, in available form by weight, 6% Nitrogen, 12% Phosphorous, and 12% Potash. It shall be free flowing and suitable for application with approved equipment, delivered to the site in bags or other convenient containers, each fully labeled with the following:

- c. Name and address of manufacturer.
- d. Name brand or trademark.
- e. Number of net pounds of ready mixed materials in the package.
- f. Chemical composition of analysis.
- g. Producer's guarantee of composition.

Fertilizer shall be evenly distributed with an approved mechanical spreader at a rate of 500 pounds per acre.

If a heavy or long rain (as judged by the ENGINEER) should fall on the plant site after fertilizer has been applied but before the seedbed has been prepared, the CONTRACTOR shall re-fertilize those areas affected, at no additional compensation.

2. SEEDBED PREPARATION

All gullies, rills, and washes shall be filled to conform to the desired shape and the entire area to be seeded shall be reasonably smooth before actual seedbed preparation is begun. Stones larger than four (4) inches in diameter, sticks, stumps, and other debris will be removed. At this point, the required fertilizer shall be applied uniformly. Immediately after application of the fertilizer, the area to be seeded shall be finely pulverized to a minimum depth of three (3) inches, either by spading and raking or by plowing, discing, harrowing, or other methods approved by the ENGINEER. The CONTRACTOR shall suspend operations when the soil is too wet, too dry, frozen or otherwise untillable. Seeded areas shall not be compacted through their use for such purposes as access roads or parking areas after seedbed preparation is completed. If rain should pack the seedbed prior to seeding, it shall be prepared again at no additional compensation.

3. SEED

Seeding shall be done immediately after seedbed preparation. The seed shall be applied at a uniform rate over the entire area. Grass seed shall be fresh, clean, and new crop seed composed of the following varieties mixed in the proportion by weight as shown, and testing the minimum percentages of purity and germination indicated. All seed used shall be labeled in accordance with U.S. Department of Agriculture

Rules and Regulations under the Federal Act in effect at the time of the installation of the work involved under seeding operations. All seed shall be furnished in sealed standard containers. Seed may be mixed by dealer or by an approved method on the site. Weed seed shall not exceed .35% by weight of the total amount supplied. If seed is mixed on the site, dealer's guaranteed analysis for each variety must be furnished. Individual varieties must be delivered in separate unopened original containers should the CONTRACTOR desire to mix the seed on the site.

The mixture of grass seed used for seeding areas flatter than 3:1 slopes shall consist of the following proportions by weight per acre:

| <u>Name</u> | <u>Lbs Per Acre</u> | <u>Percent Purity</u> | <u>Percent Germination</u> |
|--------------------|-------------------------|---------------------------|--------------------------------|
| Turf Type Fescue | 75 | 98 | 85 |
| Perennial Ryegrass | 20 | 98 | 90 |

Areas with slopes 3:1 or steeper shall have an additional seeding of the following kind and quantity of seed:

| <u>Name</u> | <u>Lbs per acre</u> | <u>Percent Purity</u> | <u>Percent Germination</u> |
|--------------------|-------------------------|---------------------------|--------------------------------|
| Perennial Ryegrass | 30 | 98 | 90 |

The mixture of grass seed used for seeding the inside area of the earthen water retaining structures shall consist of the following proportions by weight per acre:

| <u>Name</u> | <u>Lbs per acre</u> | <u>Percent Purity</u> | <u>Percent Germination</u> |
|-------------------|-------------------------|---------------------------|--------------------------------|
| Reed Canary Grass | 15 | 98 | 90 |
| Tall Fescue | 15 | 98 | 90 |

4. SEEDING MATERIALS

No seed shall be sown during high winds or when the ground is not in proper condition for seeding (as judged by the ENGINEER). The ENGINEER shall examine and approve any equipment to be used. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the proper seeding rate. The ENGINEER shall be notified 48 hours prior to beginning the seeding operations so the trial seeding runs can be made to insure the proper seeder calibration.

Within 12 hours after seeding, the area shall be rolled at right angles to the runoff with an approved type roller or cultipacker to compact the seedbed and place the seed in contact with the soil.

5. MULCHING

Immediately after rolling of the seedbed, mulch shall be applied to all the earthen embankments, road ditches, drainage swales and any slopes of 3:1 or steeper. Mulching will not be required on the remaining areas of the site. Mulch shall be straw of wheat, rye, oats, or other approved stalks and shall be air dried. Hay will not be permitted. Mulch shall be hand or machine applied in loose enough layers to permit air to circulate but compact enough to reduce erosion. If baled mulch is used, care

shall be taken that the material is in a loosened condition and contains no lumps or knots of compacted material.

6. WATERING

Immediately after the seeding operation is complete, the CONTRACTOR shall maintain a daily sprinkling schedule of several hours until such time as the seed commences to grow. Sprinklers approved by the ENGINEER will be used. Dosing with open ended or nozzled hoses will not be permitted.

7. RESEEDING AND MAINTENANCE

Seeding operations shall be repeated until a satisfactory uniform stand of grass is secured. Damage resulting from erosion, gulleys, washouts, or other causes shall be repaired by filling with topsoil, tamping, refertilizing and reseeding by the CONTRACTOR at no additional compensation. The CONTRACTOR shall mow and maintain all seeded areas until final acceptance of the project.

8. CROP REDUCTION PLAN (CRP) SEEDING

The CONTRACTOR shall contact the local NRCS office and receive approval of grass seed and fertilizer mixtures prior to placing any seed or fertilizer on any CRP land.

C. TURFGRASS SOD

The work shall consist of furnishing all labor, equipment, and materials for sodding a permanent grass mixture on all yards within the work area limits which are disturbed during completion of work. Sodding shall be completed within 60 days of connection of homes to the Greenville Sanitary Sewer System, for the gravity main and services in yards. Failure to meet these guidelines will result in Liquidated Damages being assessed against the CONTRACTOR, at the established daily rate.

1. FERTILIZER

The CONTRACTOR can choose to either:

- a. Take a minimum of one soil sample for every 1000 lineal feet of sanitary sewer main installed to be tested by the Soil and Water Conservation to determine the amount of fertilizer actually needed at the CONTRACTOR's expense.
- b. Add fertilizer in the amounts listed in the following paragraphs.

Immediately prior to seeding preparation, fertilizer shall be placed over the areas to be seeded. The fertilizer shall be a complete commercial fertilizer of organic base containing, in available form by weight, 6% Nitrogen, 12% Phosphorous, and 12% Potash. It shall be free flowing and suitable for application with approved equipment, delivered to the site in bags or other convenient containers, each fully labeled with the following:

- c. Name and address of manufacturer.
- d. Name brand or trademark.

- e. Number of net pounds of ready mixed materials in the package.
- f. Chemical composition of analysis.
- g. Producer's guarantee of composition.

Fertilizer shall be evenly distributed with an approved mechanical spreader at a rate of 500 pounds per acre.

If a heavy or long rain (as judged by the ENGINEER) should fall on the plant site after fertilizer has been applied but before the seedbed has been prepared, the CONTRACTOR shall re-fertilize those areas affected, at no additional compensation.

2. SODBED PREPARATION

Add good quality topsoil (if needed) to achieve total topsoil depth of 4-6 inches, after firming. To the extent possible, practical, affordable, and available, incorporate humus (fully decomposed organic matter) into the topsoil. Many local companies offer nutrient-rich compost/topsoil blends.

Test the soil pH with a chemical soil test to determine if any pH correcting materials are required. Acidic soils (pH of 6 and below) can be improved with the addition of pelletized lime. Alkaline soils (pH of 7.5 and higher) can be improved with the addition of sulfur or gypsum.

Finish grade the entire site, maintaining the rough grading contours and slopes, with a tractor-mounted box blade or pulverizer for large areas or a heavy-duty rake for smaller areas. Final grade should be approximately 3/4 below driveways, sidewalks, etc.

Apply "starter fertilizer" that is high in phosphate ("P" or the middle number on a bag of fertilizer), at the recommended rate. Ideally, rake the fertilizer into the top 1-2 inches. Organic fertilizers make a good choice for this application.

If your soil is loose and fluffy, you may roll the area with a lawn roller one-third full of water to firm and settle the surface. Low spots revealed by this step should be filled to match the surrounding grade surface. If time permits, allow the area to settle further with rainfall or by applying irrigation.

All gullies, rills, and washes shall be filled to conform to the desired shape and the entire area to be sodded shall be reasonably smooth and shaped to drain water away to avoid ponding before actual seedbed preparation has begun. Stones larger than four (4) inches in diameter, sticks, stumps, and other debris will be removed. At this point, the required fertilizer shall be applied uniformly. Immediately after application of the fertilizer, the area to be sodded shall be finely pulverized to a minimum depth of four (4) inches, either by tilling, by plowing, discing, harrowing, or other methods approved by the ENGINEER. The CONTRACTOR shall suspend operations when the soil is too wet, too dry, frozen or otherwise untillable. Seeded areas shall not be compacted through their use for such purposes as access roads or parking areas after seedbed preparation is completed. If rain should pack the seedbed prior to sodding, it shall be prepared again at no additional compensation.

The edge or transition between sod and existing grass shall be a straight edge cut with edger or sod cutter to a depth of ¼ - ½ inch and all existing grass, and debris removed or tilled into the existing soil. The CONTRACTOR shall not lay sod over existing grass.

3. SOD

Sodding shall be done immediately after seedbed preparation. The sod shall be applied in straight lines with offset joints over the entire area.

The landowner may request a different species of grass for their property. The CONTRACTOR shall provide the other species at no additional increase in contract price.

4. SODDING

Install your lawn immediately upon delivery. Begin watering lawn within 30 minutes of installation. Turf is a living plant that requires ground contact and moisture to survive! In hot weather, begin watering while you are installing. Do not wait until the entire lawn is installed before turning on the water. Begin installing turf along the longest straight line, such as a driveway or sidewalk. Butt and push edges and ends against each other tightly, without stretching. Avoid gaps or overlaps. Stagger the joints in each row in a brick-like fashion, using a sharp knife to trim corners, etc. Avoid leaving small strips at outer edges as they are more susceptible to drying. On slopes, place the turf pieces lengthwise across the slope. To avoid causing indentations or air pockets, avoid walking or kneeling on the turf while it is being installed or immediately after watering. After installing the turf, roll the entire area to improve turf-to-soil contact and remove air pockets.

5. WATERING

Give the new lawn at least 1 inch of water within 1/2 hour of installation. Water daily, or more often, keeping turf moist until it is firmly rooted (about 2 weeks). Then less frequent, deeper waterings should begin. Weather conditions will dictate the amount and frequency of watering. Be certain that the new lawn has enough moisture to survive hot, dry, or windy periods. Water areas near buildings more often where reflected heat dries the turf. The CONTRACTOR shall maintain a daily sprinkling schedule of several hours until such time as the sod grass commences to grow. Sprinklers approved by the ENGINEER will be used. Dosing with open ended or nozzled hoses will not be permitted. The CONTRACTOR with a written signoff and signature from homeowner can have the landowner do the watering.

6. RESODDING AND MAINTENANCE

Sodding operations shall be repeated until a satisfactory uniform stand of grass is secured. Damage resulting from erosion, gulleys, washouts, or other causes shall be repaired by filling with topsoil, tamping, refertilizing and reseeding by the CONTRACTOR at no additional compensation. The CONTRACTOR shall mow and maintain all seeded areas until final acceptance of the project.

D. PLANTING

1. GENERAL

Planting shall be as specified in the Illinois Standard Specifications for Road and Bridge Construction except as amended herein. In case of conflict with the Standard Specifications for Road and Bridge Construction, the more stringent specification will be followed.

Ball rooted plants are designated BR, and balled and bur-lapped plants B&B. When plants of the kinds or sizes specified are not available within a reasonable distance, substitutions may be made upon request by the CONTRACTOR, if approved by the OWNER or the ENGINEER. Plants larger than specified in the plant list may be used if approved by the ENGINEER, but the contract unit price may not be increased. If larger plants are approved, the spread of roots or ball of earth shall be increased in proportion to the size of the plant.

2. FERTILIZING

Fertilizing shall conform to the Standard Specifications for Road and Bridge Construction, and shall contain six (6) percent Nitrogen, twelve (12) percent Phosphorous, and twelve (12) percent Potash by weight.

3. PLANTING MATERIALS

Materials used for planting trees shall be as follows:

- a. Bracing - materials used for staking, bracing, or guying shall conform to the Standard Specifications except as amended herein. Buying and staking trees shall be done as directed by the ENGINEER.
- b. Hose - Hose, if used, shall be two-ply fiber-bearing garden hose, not less than one-half (1/2) inch inside diameter.
- c. Wrapping Material - Wrapping material shall be first quality, heavy waterproof crepe paper manufactured for tree wrapping.
- d. Mulch - Mulch shall be wood chips or ground bark.

4. PRUNING

Each tree and shrub shall be pruned in accordance with AAN Standards of the Standard Specifications for Road and Bridge Construction.

5. MAINTENANCE

Plant care shall be in accordance with the Standard Specifications for Road and Bridge Construction and as specified herein. The CONTRACTOR shall be responsible for maintenance of each plant immediately after planting until final acceptance of the project.

32.23. EROSION CONTROLS

The NPDES General Permit Number ILR10 for Construction Site Activities governs the erosion protection practices of this work. The OWNER will submit to the Illinois Environmental Protection Agency a Notice of Intent (NOI) for the General Permit to Discharge Storm Water from Construction Site Activities. The CONTRACTOR shall be responsible for implementation and maintenance of all erosion control measures necessary.

In addition to the erosion control measures shown on the Drawings, the requirements of the NPDES Permit and the SWPPP, the CONTRACTOR shall exercise all precautions and take whatever measures necessary to prevent soil erosion. Earthwork operations shall be planned so that the exposure of bare soil is minimized, both as to extent and duration. The CONTRACTOR will be responsible for installing and maintaining the erosion control measures as specified on the Drawings and as necessitated by field conditions and construction methods. Erosion control measures shall generally adhere to the SWPPP and this Section. Payment for the erosion control measures implemented will be at the CONTRACTOR'S unit bid price for the BMP installed as described in these specifications. Additionally, maintenance of the erosion control measures, as required by the NPDES permit and outlined in the SWPPP will be incidental to the total Contract Price. If, in the judgment of the OWNER or ENGINEER, the CONTRACTOR disturbs more land than is necessary for the associated work, they shall install erosion control measures in that area in accordance with the SWPPP at no additional cost to the OWNER.

If, in the opinion of the OWNER or ENGINEER, excessive soil erosion is occurring due to construction methods or other factors that are controllable by the CONTRACTOR, the CONTRACTOR shall immediately remedy the problem under the ENGINEER'S direction. Remedial measures may include, but not be limited to the following: installation of pre-manufactured ditch checks, installation of drainage ditch checks, silt retention fences, construction of temporary sediment ponds, reseeding, intermediate mulching, regrading, and removal of earth stockpiles. In such instances, all remedial measures required to prevent soil erosion and the associated maintenance of such measures shall be incidental to the total Contract Price. Any and all fees, additional inspection costs, and fines received by the OWNER regarding NPDES noncompliance for this project will be passed to the CONTRACTOR and is incidental to the Contract Price.

A. TRENCH STABILIZATION

When slopes exhibit excessive erosion, and as directed by the ENGINEER or OWNER or as shown on the Drawings, and described in the SWPPP, erosion checks shall be installed at necessary intervals to prevent ditch washout.

Erosion control shall be of the following types and payment will be as indicated:

1. RIPRAP BERM

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2. DIRT BERMS (A SHALLOW DAM OF DIRT 18" H X 24" W X 15' L)

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3. MULCH, STRAW, OR SOME OTHER MATERIAL APPROVED BY THE ENGINEER

Shall be spread on disturbed surface to provide protection for uncompacted earth, and shall be incidental to Temporary Seeding and Mulch and Permanent Seeding.

4. PRE-MANUFACTURED DITCH CHECKS

GeoRidge shall be installed perpendicular to the trench or ditch as per the manufacturers recommendations, including the toed in erosion control blanket (erosion control blanket used here shall be incidental to the bid price for ditch checks); straw wattles can be used in lieu of the pre-manufactured check dams (see Straw Wattles below). A sufficient number of check dams or wattles shall be supplied to serve as a sediment control for the entire width of the trench or ditch. The CONTRACTOR will be paid the unit bid price for each ditch check regardless of the number of check dams/sections or straw wattles needed.

5. SILT FENCE

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6. STRAW WATTLES

Straw wattles (rolled erosion control products) shall be trenched in and staked per manufacturers recommendations. Where straw wattles are used as ditch checks they shall be spaced so the low point of the wattles is equal to the toe of the upstream wattle. The wattle shall extend up the side slope a minimum of 6" above the low point of the wattle. Straw wattles shall be paid at the CONTRACTORS unit bid price.

7. URETHANE FOAM GEOTEXTILES (TRIANGULAR SILT DIKE)

Where indicated on the plans a Triangular Silt Dike shall be installed (toed in and stapled) per manufactures recommendations. Where indicated on the plans or as needed a triangular silt dike shall be placed adjacent to the terminus of the disturbed portion of a ditch. This type of placement is intended to act as a sediment basin. The silt dike shall extend to the top of the side slopes or 6" above the lowest point of the dike. All necessary triangular silt dike will be paid for as set forth in the CONTRACTOR'S unit bid prices.

8. TEMPORARY SEEDING

Temporary seeding of the trench lines may be used to control erosion provided the temporary seeding activity corresponds with effective seeding/germination time periods. Where temporary seeding is shown on the Drawings for ditch crossings, either with other erosion control measures or as a standalone measure, the CONTRACTOR shall bid a price for EACH site. The CONTRACTOR shall visit each site as necessary to determine the amount of material and labor required. The CONTRACTOR'S bid price for each site shall hold true if additional sites are added during construction. Where temporary seeding is required due to slopes in pastures and timbers, the temporary seeding shall be paid for at the CONTRACTOR'S unit bid price per lineal foot. Temporary seeding that is paid per lineal foot must be approved by the ENGINEER.

9. INLET PROTECTION

Culverts and storm sewer inlets must have sediment control in place before disturbing land surfaces UPSTREAM. Inlet protection shall be either straw wattles or silt fence style as appropriate for sediment control for the specific field condition. All necessary inlet protections will be paid for as set forth in the CONTRACTOR'S unit bid prices.

B. SLOPE STABILIZATION

Where slope stabilization cannot be maintained due to steepness of the grade and/or physical limitations encountered (flowing water at ditch crossing), erosion controls shall be installed as directed by the ENGINEER and/or as shown on the Drawings and described in the SWPPP:

1. RIPRAP

Shall be six (6) inches in depth (sized and placed as described in Section 32.05 B.), covering the entire slope. Where riprap is required, the riprap shall be paid for at the CONTRACTOR'S unit bid price per cubic yard. Riprap that is paid per cubic yard must be approved by the ENGINEER and/or RPR.

2. EROSION CONTROL BLANKET

Shall be constructed of 70% agricultural straw, 30% coconut fiber, encased between two natural fiber, biodegradable nets installed per the manufacturer's recommendation. This blanket is to be used where riprap is not an option. Erosion blanket is to be North American Green SC 150 BN, or equal. Placement of erosion blanket will be paid at the CONTRACTOR's unit bid price per lineal foot of along sewer main or lateral (gravity or force), except when used with Geo Ridge ditch check. The erosion control blanket shall be incidental to the Geo Ridge ditch check

3. STRAW WATTLES

Straw Wattles shall be installed per manufacturers recommendation for trenching and staking in place. The wattles shall follow contours and be properly spaced. Where wattles are placed to contain sediment from runoff from slopes, hills, berms, or spoil piles, place the wattles along the contour of the slope, the base of the slope, or as shown on the Drawings and as necessary to prevent loss of sediment. Straw wattles shall be paid at the CONTRACTORS unit bid price.

4. TEMPORARY SEEDING

Temporary seeding of the trench lines may be used to control erosion provided the temporary seeding activity corresponds with effective seeding/germination time periods. Where temporary seeding is required due to slopes in pastures and timbers, the temporary seeding shall be paid for at the CONTRACTOR'S unit bid price per lineal foot along the sewer main and lateral (gravity or force). Temporary seeding that is paid per lineal foot must be approved by the ENGINEER.

C. PERIMETER PROTECTION

Where required by the site and/or construction practices, and as shown on the Drawings and described in the SWPPP, perimeter protection measures shall be implemented to prevent the migration of sediment off site.

1. SILT FENCE

Shall be installed per the NRCS specifications and shall be placed along slopes or the perimeter of the property as necessary to prevent loss of sediment. Silt fence shall be incidental to the contract.

2. STRAW WATTLES

Straw wattles (rolled erosion control products) shall be trenched in and staked per manufacturers recommendations. Straw Wattles when used as other than ditch checks shall be paid at the CONTRACTOR's unit bid price.

3. TEMPORARY SEDIMENT BASINS

Where indicated on the plans a triangular silt dike shall be installed (toed in and stapled) per manufactures recommendations. Where indicated on the plans or as needed a triangular silt dike shall be placed adjacent to the terminus of the disturbed portion of a ditch. This type of placement is intended to act as a sediment basin. The silt dike shall extend to the top of the side slopes or 6" above the lowest point of the dike. Silt dikes used as a "sediment basin" shall be paid at the CONTRACTOR's unit bid price for triangular silt dike.

Additional erosion control practices may be used with prior approval from the ENGINEER and OWNER. Payment for additional erosion control practices will be negotiated as necessary. Maintenance of all erosion control BMP's must be in accordance with the NPDES permit and the SWPPP (See above in Section 32.23) and shall be incidental to the contract prices.

INSTALLATION OF SEWER MAIN AND APPURTENANCES

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INSTALLATION OF SEWER MAIN AND APPURTENANCES

Section 42

42.01. SCOPE OF WORK

The work to be performed under this section shall include all materials, labor, equipment, and all other facilities necessary for the installation of the sewer mains by the trench method and for the installation of appurtenances as shown on the Drawings and/or herein specified.

Backfilling operations at fittings, valves, and connections to manholes or other structures shall not occur until all materials and work have been viewed by the OWNER, ENGINEER, or the Resident Project Representative.

No wood shall be allowed in the trench to shim or block out the sewer main, control the bend of a pipe, or discarded in the trench.

42.02. CONSTRUCTION METHODS

Construction methods recommended in the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, as far as applicable, shall be followed. In case of conflict with the Standard Water and Sewer Specifications, the more stringent specification will be followed. Installation methods shall also conform to the manufacturer's recommendations for the type of pipe being installed, unless specified differently in this Section. All construction and installation shall also comply with the most recent version of the Illinois State Plumbing Code.

For material specifications to the material type of sewer main, fittings, and appurtenances to be utilized, refer to Section 52 "Sewer Main, Fittings, and Appurtenances" of these Specifications.

For installation criteria regarding the boring or boring and jacking of sewer mains and service lines, refer to Section 55 of these Specifications.

42.03. PIPE LAYING

A. General

HDPE and/or PVC Water Quality pipe installed for use as force main shall be clearly labeled/marked as sanitary sewer force main, either by color or label installed every 4 feet on the force main.

Pipe laying, jointing, and testing for sewer pipe shall be as specified in Section 31 of the Standard Water and Sewer Specs except as herein supplemented or modified:

In addition to the requirements called for in Section 31-1.01 of the Standard Specifications, the following shall apply:

The locations of the sewers, conduits, and structures, as shown on the Drawings, have been selected to provide the least possible interference with, or the crossing of, existing utilities. The OWNER reserves the right to make minor variations in the location of these items during construction, to make any change or differing conditions discovered during construction, and no additional payment will be allowed the CONTRACTOR for such shifts in alignment.

Only competent persons at laying sewer main pipe shall be employed on this phase of the work, and complete suitable equipment necessary for the execution of same is required. Any incompetency observed by the OWNER must be removed at their request, and where improper equipment or lack of same appears to be impairing the quality or speed of the work, such adjustments in same shall be made to the OWNER's satisfaction.

The pipe, structures, fittings, and valves shall be placed in the trench with care. Under no circumstances shall pipe or other materials be dropped or dumped into the trench. The pipe shall not be dragged in a manner which would cause scratching on the surface of the pipe and will be considered cause for rejection. Pipe shall be installed in accordance with the manufacturer's recommendations, and with the Standard Water and Sewer Specs.

Polyethylene encasement shall be used to wrap the ductile iron pipe prior to installation. See Section 52.03.D. for specifications on the polyethylene encasement.

B. Bypass Pumping

The CONTRACTOR shall be responsible for design, installation, and maintenance of bypass pumping during sanitary sewer construction operations if required. Design, maintenance plan, and equipment shall be submitted for review and approval of ENGINEER.

C. Pipe Cleaning During Laying Operation

The pipe shall be kept clean during and after laying. At the termination of pipe laying, the open end of the pipeline shall be closed off by a suitable cover until laying operations are resumed. All dirt, debris and moisture shall be removed from the surfaces to be jointed.

If dirt or dust has been introduced into the length of pipe, a thorough cleaning of the pipe shall be done just before the joint of pipe is installed. At this time, a visual check shall be made by placing the pipe in an inclined position to assure that all foreign matter and dirt is removed from the inside of the pipe.

D. Inspection of Material During Construction

Any materials not meeting the specifications, or obviously faulty material, shall be rejected by the ENGINEER and removed from the job site by the CONTRACTOR. When ordered by the ENGINEER, joints may be cut from the pipeline for inspection. All ductile iron installation, **whether pipe or fittings**, shall be reviewed by the RPR before the trench is backfilled. Failure to allow for this observation shall result in the exposing of the pipe for review, and shall be incidental to the contract costs.

E. Fluid Tight Joints

Make sure the gasket is not twisted or turned to prevent proper sealing in the groove. Apply the lubricant to the gasket surface and to the spigot end of the pipe. The joint is made by

one quick easy motion making sure the guide mark has reached the end of the fitting. For RJ pipe, the CONTRACTOR should then insert the nylon spline through the spline hole in the assembled joint which engages with the spline groove in the pipe end.

F. Breaks in Pipe or Joints

All breaks in pipe and/or joints shall be repaired to the satisfaction of the ENGINEER and at the expense of the CONTRACTOR. The defective pipe or fittings shall be removed and replaced. Repair clamps will **not** be permitted on forced main.

G. Cutting Pipe

Cutting of RJ pipe shall **not** be allowed; only the installation of full length joints shall be allowed.

H. Bed and Cover

The CONTRACTOR shall follow Section 32 of these Specifications.

I. Measurement and Payment

Payment for all work described in this section shall be included in the CONTRACTOR's bid price for the respective sizes of lines, pressure class, depth, and material type, as shown in the Bid Schedule. Measurement in lineal feet shall be made along the centerline of the trench through all valves and fittings, starting and ending at the face of structures.

J. Service Connections

All service connections shall be made by means of tees, tapped couplings, service clamps and other fittings approved by the ENGINEER. The use of solvent weld plastic saddles will not be permitted.

42.04. UTILITIES ENCOUNTERED

All utilities, including wiring, light standards, signal lights, sewers, private water lines, buried telephone cable, underground gas lines, etc., affecting the construction of the proposed improvement shall be adjusted at the CONTRACTOR's expense. It shall be the CONTRACTOR's responsibility to determine the exact location of all utilities. All adjustments shall be done as specified by the owner of the utility.

If the CONTRACTOR damages any utility not requiring adjustment, they shall replace or repair it as required by the owner and no additional compensation will be allowed. No attempt has been made on the Drawings to show all utilities or their exact locations. (See Section 15.02 of these specifications.)

The OWNER reserves the right to make minor variations in the location of these items during construction, to make any change or differing conditions discovered during construction, and no additional payment will be allowed to the CONTRACTOR for such shifts in alignment.

42.05. TESTING OF SEWER MAIN AND EQUIPMENT

A. Gravity Pipe

All sewers not passing any of the following referenced tests shall be considered unsatisfactory and shall be repaired by the CONTRACTOR at no additional compensation.

All tests and testing equipment, including a pressure gauge with maximum graduations of 0.5 psi and approved by the Resident Project Representative (RPR), shall be provided by the CONTRACTOR at no cost to the OWNER.

When pressure tests are to be conducted, the CONTRACTOR shall have the full test pressure applied to the sewer main segment, and verify that the sewer main segment is holding pressure, prior to notifying the RPR to observe the formal pressure test for the duration required. Pressure test observation requests after 3:30 P.M. will be performed the next working day.

RPR shall be present for all testing.

1. Air/Leakage Test

In reference to Section 31-1.12 of the Standard Water and Sewer Specifications, "Testing and Inspection for Acceptance of Sanitary Sewers," **all** (100%) of the wastewater sewers shall be tested for leakage using the pressure air testing method. The time required for a pressure drop from 3.5 to 2.5 PSIG shall not be less than the time specified in the 35 Illinois Administrative Code 370.APPENDIX C Table No. 3 - Air Test Table for Sanitary Sewer Leakage Testing. Air testing shall be incidental to the total Contract Price.

2. Infiltration Test

If approved by the ENGINEER, the infiltration test may be used if the water table is 18 inches or higher above the crown of the pipe and the exfiltration by water test may be used if the water table is less than 18 inches above the crown of the pipe.

3. Video Taping

In addition to the leakage test **all** sewers shall be subjected to Video Taping. The ENGINEER can request the lines to be videotaped at any time during construction. All lines will be televised by the end of the project. Each section of sanitary sewer line shall be cleaned of dirt and debris, then captured and removed at the next downstream manhole. The CONTRACTOR shall add water to the pipeline prior to the video inspection to help identify deficiencies. The recording shall be made using a color camera, self propelled or other, having sufficient light to show detail of problem areas and joints. The camera shall have a swivel head to look up each service connection. Camera speed shall not exceed three (3) feet per second. If problem areas or concerns are seen by the operator, then the camera shall be backed up, and an extended look at the area will be recorded. All recordings will have location (i.e. manhole # to manhole #), time, date, and footage displayed. A minimum of two (2) copies of the tapes and two (2) written inspection reports shall be furnished to the ENGINEER and OWNER. The Video Taping will be paid for on a unit price per installed footage basis.

4. Lamping Test

Lamping tests may be required by the ENGINEER/OWNER at any time during construction an/or testing of the sanitary sewers. All sewers not passing the lamping tests shall be considered unsatisfactory and shall be repaired by the CONTRACTOR at no additional compensation.

5. Mandrel/Deflection Test

Deflection testing shall be conducted in accordance with the Standard Water and Sewer Specifications, Section 31-1.12.

B. Pressure Pipe

Pipe laying, jointing, and testing for pressure pipe shall be as specified in Division IV, Section 41 of the Standard Water and Sewer Specs, except as herein supplemented or modified. Where laying and jointing methods for an allowable type of pipe are not covered by the Standard Water and Sewer Specs, the pipe shall be installed in accordance with the manufacturer's recommendations and applicable standards of the AWWA, ASTM, ASA or ANSI.

1. Preliminary Pressure Testing: At the ENGINEER's option during the general construction period the following pressure testing procedure shall be followed:

After the PVC pipe is assembled trench side or in the trench, a test of not less than fifty percent (50%) above the system's anticipated working pressure shall be applied with either air or water. After two consecutive tests have been performed without any failure, the CONTRACTOR at their option and with the ENGINEER's approval may discontinue testing until the system is completed. A hydrostatic test shall then be run as outlined in 42.07.B.2, below.

If there is a change of laying conditions, technique or personnel after the testing has been discontinued, the CONTRACTOR should, and at the ENGINEER's request will, test additional sections to provide assurance that this change is satisfactory.

2. Pressure Testing: Hydrostatic and pressure testing shall conform with Section 41-2.14 of the Standard Water and Sewer Specs; the basic provisions of AWWA C600 and C605 shall apply. The leakage test is not an acceptable formal test for passing a pressurized sewer main, only the pressure test is allowable.

Prior to performance of the test all air shall be expelled from the pipeline to the satisfaction of the ENGINEER. If required, taps shall be made at high points where air relief valves are not called for on the Drawings. Such taps shall be plugged after testing is complete.

Pressure 50 percent in excess of working pressure, as measured at the point of lowest elevation, shall be applied for not less than one (1) hour, and all pipe, fittings, valves, and joints shall be carefully examined for defects. Leaking joints shall be remade and then retested.

C. Manholes

Manholes shall be tested before the ring and cover and grade adjustment rings are installed, and before backfill and compaction is complete. Conduct test in conformance with ASTM C1244. Vacuum testing of manholes shall be incidental to the total Contract Price.

1. Preparation for tests:

- a. All pipes entering the manhole shall be temporarily plugged beyond the boot seals, taking care to securely brace the pipes and plugs to prevent them from being drawn into the manholes.
- b. The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendation.

2. Test Procedure:

- a. A vacuum of 10-inches mercury shall be drawn in the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off.
- b. The manhole shall pass if the time for the vacuum reading to drop from 10-inches mercury to 9-inches mercury meets or exceeds the values indicated in the following table:

| | Diameter | | |
|---------------|----------------|------|------|
| | 4 ft | 5 ft | 6 ft |
| Depth (feet)* | Time (Seconds) | | |
| 8 | 20 | 26 | 33 |
| 10 | 25 | 33 | 41 |
| 12 | 30 | 39 | 49 |
| 14 | 35 | 46 | 57 |
| 16 | 40 | 52 | 67 |
| 18 | 45 | 59 | 73 |
| 20 | 50 | 65 | 81 |
| 22 | 55 | 72 | 89 |
| 24 | 59 | 78 | 97 |
| 26 | 64 | 85 | 105 |
| 28 | 69 | 91 | 113 |
| 30 | 74 | 98 | 121 |

* Round actual depth of manhole to next depth up (i.e., 11 ft deep manhole, use depth of 10 feet)

If the manhole fails any test, the CONTRACTOR, at no additional costs, shall make all necessary repairs by an approved method and the manhole shall be retested until a satisfactory test is obtained. Written test results shall be provided to ENGINEER/OWNER.

42.06. DRAINAGE DITCH / CREEK CROSSINGS

Where sewer mains cross drainage ditches or creeks, the main shall be installed within the easement under the drainage ditch bed or creek bed avoiding obstructions such as culverts, concrete wingwalls, paved ditches, etc.

Where restrained-joint (RJ) PVC pipe for drainage ditch or creek crossings is NOT specified, the CONTRACTOR shall excavate across all drainage ditches or creeks called for in the plans to a sufficient depth to still maintain a minimum of 48 inches of cover between the top of the pipe and the bed of the drainage ditch or streambed of the creek. The PVC pipe shall then be laid in the trench and weighted down with sufficient numbers of sandbags filled with sand to keep the pipe from springing (or floating) upward. The trench shall then be backfilled per these specifications. This method of drainage ditch or creek crossing work shall be incidental to the Contract Price.

Where restrained-joint (RJ) PVC pipe for drainage ditch or creek crossings IS specified on the Drawings, the CONTRACTOR shall install the pipe according to Section 55 of these specifications. A minimum of 60 lineal feet of RJ PVC pipe with expansion couplings at both ends (see Section 52 of these specifications) shall be required at each drainage ditch crossing. If field conditions warrant it, the length of RJ PVC pipe may be increased with ENGINEER approval. This method of drainage ditch crossing work shall be paid in a twofold manner according to the appropriate bid item. First, the amount of RJ PVC pipe required for the drainage ditch crossing, as measured in the field, shall be paid per lineal foot. Second, a lump sum fee reflecting set up time, mobilization, etc., shall be paid for each drainage ditch crossing requiring RJ PVC pipe.

Where a directional bore is specified on the Drawings, see section 55 of these Specifications.

42.07. SEWERS NEAR WATER MAINS AND WATER SERVICE LINES

Per 35 Illinois Administrative Code 370.350, there shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto, which would permit the passage of any sewage or polluted water into the potable supply.

No sewer shall be located closer than 10 feet from water works structures.

A. Horizontal and Vertical Separation

1. Sewer mains and connections shall be laid at least 10 feet horizontally from any existing or proposed water main or water service line.
2. Should local conditions exist which would prevent a lateral separation of 10 feet, sewer lines may be closer than 10 feet to a water main provided that the water main invert is at least 18 inches above the crown of the sewer line, and is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.
3. If it is impossible to obtain proper horizontal and vertical separation as described above, both the water main and sewer must be constructed with water main quality pipe and joints: slip-on or mechanical joint cast or ductile iron pipe, asbestos-cement pressure pipe, prestressed concrete pipe, or PVC pipe meeting the requirements of 35 Illinois

Administrative Code, 653.111. The pipes shall be pressure tested in accordance with "AWWA Standard for Installation of Ductile-Iron Water Mains and their Appurtenances," AWWA C600-93 (no later editions or amendments) for a working pressure equal to or greater than the maximum possible surcharge head to assure water tightness before backfilling.

B. Water-Sewer Line Crossings

1. Whenever possible, sewers crossing water mains shall be laid with the sewer below the water main with the crown of the sewer a minimum of 18 inches below the invert of the water main. The vertical separation shall be maintained on each side of the crossing until the perpendicular distance from the water main to the sewer is at least 10 feet. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Adequate support shall be provided for the water mains to prevent damage due to settling of the sewer trench.
2. Where a sewer crosses under a water main and it is not possible to provide an 18-inch vertical separation:
 - a. The sewer shall either be constructed with, or shall be encased in a carrier pipe with the ends sealed that is, water main quality pipe and joints: slip-on or mechanical joint cast or ductile iron pipe, asbestos-cement pressure pipe, prestressed concrete pipe, or PVC pipe meeting the requirements of 35 Illinois Administrative Code, 653.111. The pipes shall be pressure tested in accordance with "AWWA Standard for Installation of Ductile-Iron Water Mains and their Appurtenances," AWWA C600-93 (no later editions or amendments) for a working pressure equal to or greater than the maximum possible surcharge head to assure water tightness before backfilling. The water main quality sewer or carrier pipe shall extend on each side of the crossing to a point where the perpendicular distance from the water main to the sewer is at least 10 feet.
 - b. For the required length of the water main quality sewer or carrier pipe, omit the select granular cradle and granular backfill to one foot over the crown of the sewer and use selected excavated material (Class IV) and compact to 95% of Standard Proctor maximum density.
 - c. Point loads between the sewer or sewer casing and the water main are prohibited.
Adequate support shall be provided for the water main to prevent damage due to settling of the sewer trench.
3. Where it is not possible for a proposed sewer to cross under an existing water main, the construction methods and materials described in 42.06.C.2 above shall be followed. Where a proposed sewer must cross over a proposed water main, an 18-inch vertical separation shall be maintained.

C. Sewer Manhole Separation From Water Main

No water pipe shall pass through or come into contact with any part of a sewer manhole.

42.08. THRUST BLOCKS

Thrust blocking is required on all pressure pipe. All bends of 11-1/4 degrees or greater, and all other fittings shall be thrust protected to prevent movement of the lines under pressure. Blocking shall be Portland Cement Concrete poured in accordance with Section 41.-2.10 of the Standard Water and Sewer Specs, or precast, solid blocking for small diameter pipe where the undisturbed soil is extremely firm and stable. Thrust blocking shall extend from the fitting to the undisturbed soil. Pipe and fitting joints shall remain accessible for repairs. Where unstable soil conditions exist, all deflections in the pipe from a straight line shall be provided thrust blocking in accordance with the manufacturer's recommendations. Concrete for reaction or thrust blocks shall have a 28 day compressive strength of not less than 3,000 psi.

No wooden wedges, treated or otherwise, shall be allowed for shims for the blocking in any circumstance. PVC pipe may not be used in lieu of concrete blocks.

Where a fitting is used to make a vertical bend, the fitting shall be anchored to a thrust block braced against undisturbed soil. The thrust block should have enough resistance to withstand upward thrusts at fitting.

42.09. CONNECTION TO EXISTING LIFT STATION OR MANHOLE

A portion of this work will require connection of the proposed sanitary sewer main to an existing lift station or manhole. The CONTRACTOR shall core drill the existing concrete lift station or manhole structure to accept the proposed sewer main. The core drill shall be of a sufficient size to allow for the use of a Calpico Pipe Lynx seal between the existing manhole and the sewer main. All fasteners/hardware shall be Type 314 stainless steel. The CONTRACTOR shall take care to accurately locate and drill the hole in the existing structure to ensure the proposed sewer main fits as intended. Any damage to the existing structure shall be repaired by the CONTRACTOR at no additional cost to the OWNER. Hammering, jack hammering, chiseling or other similar destructive methods shall not be allowed for making or altering the penetration.

42.10. SERVICE LATERALS AND RISERS

The service riser shall be constructed with a 6-inch wye, as shown on Standard Drawing No. 7 of the Standard Water and Sewer Specs, placed to receive the 6-inch service sewer. The riser pipe shall extend to the elevation as shown on the profile Drawings or as herein determined. The wye, or wye and riser combination shall be installed and bedded as shown on the Drawings.

The CONTRACTOR shall be responsible for connecting the existing residences to the proposed sewer main with a 6-inch PVC lateral after the sewer main has been installed, tested and is ready for service. The proposed 6-inch PVC lateral shall be extended from the 6-inch service wye and connected to the building lateral or existing septic tank inlet piping. The CONTRACTOR shall sever the existing septic tank inlet piping and reconnect the lateral from the building to the new 6-inch service lateral. The CONTRACTOR shall be responsible for

locating the existing service lateral or the septic tank inlet piping, and for closely checking its elevation and distance from the new sewer main in order to determine the necessary depths and slopes of the service riser. The service lateral shall be installed with a minimum 1% slope. The CONTRACTOR will be paid for the installation of the service lateral based on their unit bid price for “6 inch PVC Service Lateral”. The CONTRACTOR will be paid for the connection to the existing building lateral based on their bid price for “Connection to Existing Service Line”.

The CONTRACTOR is responsible for installing clean-outs at 100 foot intervals with one being within 50 feet of the sewer main. Clean-outs shall also be located at each bend in the service line. The CONTRACTOR will be paid for the installation of each clean-out based on their unit bid price for “Service Line Clean-out”.

Separately, the CONTRACTOR will be paid for making the connection of the 6-inch PVC service lateral to the existing building lateral or septic tank inlet piping. The CONTRACTOR shall include in their unit bid price all costs associated with locating the existing building lateral or septic tank inlet piping, and making the necessary transition from the existing lateral to the 6 inch PVC lateral.

The CONTRACTOR shall keep an accurate record of service locations as installed and turn this record over to the RPR at the job site.

Excavation, backfill, restoration of surface, and laying of service lateral piping shall be the same as for the main line wastewater sewers.

At any time after substantial completion and during construction of building sewers at current residences of the municipality, if any additional costs are incurred by the OWNER because wyes, risers and service laterals have been installed to elevations too high to serve basements, the CONTRACTOR or his surety shall reimburse the OWNER for said costs.

42.11. SEPTIC TANK DECOMMISSIONING

Once the residences service laterals have been transferred from the existing septic tanks to the new sanitary sewer main, the CONTRACTOR shall decommission the existing septic tanks by pumping the tanks empty, caving in the tops, filling the tanks with sand to six (6) inches below existing grade, placing dirt in the top six (6) inches and re-seeding the disturbed area. This work shall be paid for at the CONTRACTOR’s unit bid price for “Decommissioning Existing Septic Tanks”.

CONTRACTOR shall notify the Bond County Health Department about each septic tank/system decommissioned.

42.12. DRAIN TILE REPAIR

The bid item for “Drain Tile Repair,” will be paid to the CONTRACTOR only when a tile or private drain line is not located or is improperly located, and the CONTRACTOR then damages and properly fixes the tile. If a tile is located to within 18 inches on either side of the mark (as for JULIE locates) and the CONTRACTOR damages the tile, then the

CONTRACTOR shall fix the tile and no payment will be allowed under this bid item. In addition, no payment will be allowed for CONTRACTOR down time to hand dig or otherwise search for a marked field tile, whether accurately located or not.

The bid price for "Field Drain Repair" shall include all necessary gravel backfill/support as shown on the Drawings and as defined in Illinois Department of Agriculture's (IDOA) requirements, included in these Specifications.

42.13. OPEN-CUT STEEL CASING

Where called out on the plans, the sewer main shall be installed in steel casing (see Section 55.07.B for material requirements) of the size shown on the Drawings. The limits of the steel casing areas shall be staked by the ENGINEER. After the steel casing has been installed in the trench, the CONTRACTOR shall backfill portions of the trench with Select Granular Backfill as specified in Section 32.

The CONTRACTOR shall bid a lineal foot price for installing steel casing of the size specified on the Drawings. Earth backfill for Open-Cut Steel Casing Pipe will be incidental to the unit price of the steel casing pipe installation and no additional compensation will be allowed. Measurement in lineal feet shall be made along the centerline of the steel casing as installed.

The sewer main installed through the casing pipe shall be restrained-joint pipe as specified in Section 52 of these specifications and sized as shown on the Drawings. End seals shall be used to seal the end of the casing. All restrained-joint pipe placed in steel casing pipe shall utilize casing spacers as specified in Section 52.05.I. Casing spacers shall be used for the full length of the casing. Payment for the restrained joint pipe through the casing shall be as specified in Section 55.06.

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Piping and Appurtenances

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Piping and Appurtenances

Section 52

52.01. SCOPE OF WORK

The work to be performed under this section of the specifications shall include all labor, materials, equipment and transportation necessary for furnishing and installing piping and appurtenances shown on the Drawings and specified herein.

The CONTRACTOR shall be responsible for all materials furnished under this section, and storage of same until the date of substantial completion. They shall replace at their expense all materials found to be defective or damaged in handling or storage. The CONTRACTOR shall, if requested by the ENGINEER, furnish certificates, affidavits of compliance, test reports or samples for check analysis for any of the materials specified herein.

Although they may not be specifically shown on the Drawings or called for elsewhere in the Technical Provisions, the CONTRACTOR shall include in their bid price the cost of all fittings, piping supports, and miscellaneous appurtenances needed to provide a secure, workable pipe and valve system. Equipment suction and discharge piping and other exposed piping shall be supported by concrete pedestals, piers, adjustable pipe supports, thrust restraints, hangers, and tie rods as necessary to insure a stable installation. Adjustable pipe supports or piers shall be arranged to relieve attached equipment of all strain due to the weight of the pipe, fittings, valves, and the contents of the pipe. Pipe supports shall be stanchion saddle type. Hanger shall be adjustable wrought clevis or adjustable wrought ring type.

52.02. GENERAL INFORMATION

A. Piping Systems

1. Gravity Pipe - The following items shall be considered gravity pipe: gravity mains, trunk lines, laterals, collectors, service lines, risers, and any other piping intended to carry wastewater or sludge by gravity flow or non-mechanically induced pressure. Where a specific pipe material or pipe joint is shown on the Drawings, only that material or joint shall be used.
 - a. Exposed or Unsupported Gravity Pipe - The pipe shall be considered exposed or unsupported whenever it is inside a structure, submerged above ground elevation, or any location where the pipe must be strong enough to span a distance between installed supports.
 - b. Buried Gravity Pipe - The pipe shall be considered buried if placed below grade and fully supported by the earth. (Other types of pipe not covered in these technical provisions will be considered for use as buried gravity pipe; in general, these pipes are recently developed and are not presently covered by specifications from national testing organizations such as ANSI, ASTM, or ASA. Examples include spiral wound PVC pipe and spiral wound Polyethylene pipe. Use of such

pipng shall require the written approval of the ENGINEER prior to bidding; this approval will be based on his/her review of the pipe specifications. These specifications shall be submitted no later than 14 calendar days prior to the bid date, and they shall provide complete information on pipe raw materials, design and stiffness, marking, workmanship, fittings, joints, and installation.)

2. Pressure Pipe - The following items shall be considered "pressure pipe": force mains, pump intake lines, potable and non-potable water lines, air mains, where pressure rating is required due to proximity of gravity sewer to existing water main, and any other pipe which generally operates under mechanically induced pressure flow. Where a specific pipe material or pipe joint is shown on the Drawings, only that material or joint shall be used.
 - a. Exposed or Unsupported Pressure Pipe - Pressure pipe shall be considered exposed or unsupported whenever it is inside a structure, in the walls of structure, above ground elevation, or any location where the pipe must be strong enough to span a distance between supports.
 - b. Buried Pressure Pipe - Any pressure pipe placed below grade and fully supported by the earth shall be considered buried pressure pipe.

B. Standard Drawings

Unless otherwise shown on the Drawings, or called for in Technical Provisions, the Standard Drawings contained in Division VI of the Standard Specifications shall apply.

52.03. PIPE MATERIAL, FITTINGS, AND JOINTS

A. Polyvinyl Chloride Slip Joint Pipe

This section of the specifications covers rigid polyvinyl chloride pipe, hereinafter called PVC pipe.

The sewer main shall be PVC pipe with push-on gasketed joints, in accordance with Section 30 of the Standard Specifications.

ASTM Specification D1784 shall be conformed to in all respects.

1. PVC Slip Joint Pipe (4 to 15 inch)
 - a. Gravity and Drain Pipe: Minimum wall thickness shall be based on SDR 26. PVC sewer pipe shall conform to ASTM D3034. PVC sewer pipe joints shall be flexible elastomeric seals per ASTM 3212 and F 477.
 - b. Pressure Pipe: SDR (Standard Dimension Ratio) - PR (Pressure Rated) PVC pipe shall be Type I, grade 1 or 2, with a hydrostatic design stress of 2000 psi for water at 73.4°F, designated as PVC 1120 or PVC 1220.

PVC pipe with SDR ratings of 13.5, 17, 21, and 26 are to be used or as indicated on the Drawings, and shall conform to the latest revision of ASTM Specification D2241. All joints shall conform to the latest revision of ASTM Specification D3139 and F 477. PVC pipe shall be push-on gasketed.

2. PVC Slip Joint Pipe (18 to 48 inch)

- a. Gravity and Drain Pipe: Minimum wall thickness shall be based on SDR 26. PVC sewer pipe and fittings shall conform to ASTM F 679. PVC sewer pipe joints shall be flexible elastomeric seals per ASTM 3212 and F 477.
- b. Pressure Pipe: DR (Dimension Ratio) - PR (Pressure Rated) PVC pipe shall design with a hydrostatic design stress of 4000 psi for water at 73.4°F in accordance with the requirements of ASTM D2837 and AWWA C905. PVC sewer pipe joints shall be flexible elastomeric seals per ASTM 3212 and F 477.

SDR (Standard Dimension Ratio) - PR (Pressure Rated) PVC pipe shall be Type I, grade 1 or 2, with a hydrostatic design stress of 2000 psi for water at 73.4°F, designated as PVC 1120 or PVC 1220. PVC pipe with SDR ratings of 21 (200 psi) and 26 (160 psi) are to be used or as indicated on the bidding schedule, and shall conform to the latest revision of ASTM Specification D2241.

B. PVC Restrained Joint

This section of the specifications covers restrained-joint PVC pipe, hereinafter called RJ pipe.

The CONTRACTOR must use RJ pipe for drainage ditch crossings, road crossings, and creek crossings as well as directional bores (including sewer main inside of casing pipe), as shown on the Drawings.

The RJ pipe shall be furnished with twin gasket couplings, nylon splines, rubber rings, and lubricant. The rubber rings shall be shipped in place in the coupling. The RJ integral bell is also acceptable.

The transition from RJ pipe to slip PVC or ductile pipe shall be made by the use of a manufacturer supplied expansion coupling. This coupling shall be Restrained Joint PVC by IPS. Only the installation of full joints of RJ pipe with factory grooves shall be permitted.

The pipe shall be PVC, with a hydrostatic design stress of 4000 psi for water at 73.4 degrees F, designated as PVC 1120 or 1220, Class 12454B and made to iron pipe size diameters. PVC sewer pipe joints shall be flexible elastomeric seals per ASTM 3212 and F 477. SDR and DR rating shall be as shown on the Drawings and as called for in these specifications.

As shown on the drawings and specified herein, 4 to 15 inch PVC pressure RJ pipe shall be:

1. Restrained Joint (PVC) Pipe, SDR 26, PR 160, for installation in directional boring and/or bore and jacked casing installations.
2. Restrained Joint (PVC) Pipe, SDR 21, PR 200, for installation in directional boring and/or bore and jacked casing installations.

C. Ductile Iron Pipe

Ductile iron pipe shall be as specified in Section 30-4.03 for gravity pipe and Section 40-2.01B for pressure pipe of the Standard Specifications.

All ductile iron pipe shall be manufactured in accordance with all requirements of AWWA Standard C151, class thickness designed per AWWA C150, cement lined with bituminous coating per AWWA C104. Flanged ductile iron pipe joints shall be designed per AWWA C110 or C153. Standard laying length is either 18 feet or 20 feet.

Polyethylene encasement shall be used on all ductile iron pipes and the polyethylene encasement shall conform to AWWA C105/A21.5. Polyethylene material will deteriorate rapidly when exposed to direct sunlight. Store all polyethylene encasement out of the sunlight. If during the installation period it is anticipated that the polyethylene encasement will be exposed to sunlight for more than two (2) weeks (ie. Open trench) Type C (black) polyethylene material must be used.

Where/if the sewer main crosses an existing petroleum pipeline, slip-joint ductile iron pipe with hydrocarbon resistant gaskets shall be used for a length as required to obtain at least 25 feet clear distance from the sewer main to the petroleum pipeline.

All exposed or unsupported pipes shall be ductile iron with either flanged or grooved joints. Buried ductile iron pipe must have either mechanical or slip seal joints.

Pipe joints shall be manufactured in accordance with the following specifications:

1. Mechanical joint pipe shall be furnished with applicable gaskets, glands, and bolts. Bolts shall be stainless steel or corrosion resistant meeting the requirements of AWWA C111/A21.11 and ASTM A242. A manufacturer certification shall be included with all shop drawing submittals as to the corrosion resistant material utilized. Joint shall be in accordance with AWWA Standard C110 and C111.
2. Slip-joint pipe shall be furnished with gaskets and lubricant, and be in accordance with AWWA Standard C111 and C600.
3. RJ pipe joint shall be furnished with gaskets, restraining ring, and lubricant, and be in accordance with AWWA Standard C153 and C111.
4. Ductile iron pipe inside of casing pipe shall use a joint restraint gasket at all joints. Joint restraint gaskets shall be Griffin Pipe Talon RJ Gasket, U.S. Pipe Field Lok 350 Gasket, or approved equal.

Ductile iron pipe utilizing joint restraint gaskets shall be pulled, NOT PUSHED, through the casing pipe. Assembly of joints using joint restraint gaskets must be controlled to prevent fully "homing" the spigot in the socket to allow for joint deflection.

5. Flanged ductile iron pipe joints shall be designed per AWWA C115 or C151.

D. Polyethylene Pipe

Pressure Pipe: SDR 9; Type III; Class C, Grade P33 or 34; thermal butt fused joint or grooved joint specifically adapted for PE pipe.

E. Fittings

All ductile iron fittings shall conform to AWWA C153, AWWA C 110, and AWWA C111, 2 inch to 48 inch, for 250 psi fluid pressure plus water hammer. All fittings except plugs and sleeves shall be cement lined to conform to AWWA C104 with a bituminous

seal coat. Sleeves and plugs shall be bituminous seal coated. Application gaskets, standard transition gasket (SMJ gasket) for PVC, mechanical joint restraining glands, and bolts shall be furnished. All bolts shall be stainless steel or corrosion resistant meeting the requirements of ANSI/AWWA C111/A21.11 and ASTM A242.

1. Fittings include gate valves, tees, elbows, crosses, reducers, caps, plugs, and wyes.
2. All fittings associated with PVC or DI sewer force main installation shall be ductile iron. All ductile iron fittings shall mechanical-joint and utilize mechanical-joint restraining glands where anchor couplings are not required.
3. PVC fittings shall be used on gravity mains at service wyes and on service lines. The PVC fittings shall be Push-on gasketed PVC fittings and meet the requirements of ASTM D2729 .
4. Pressure rating of fittings shall be equal to or greater than the specified pipe.
5. Backfill operations at fitting and gate valve locations shall not occur until all materials and work have been viewed by the OWNER or resident project representative (RPR).
6. Any PVC slip-couplings utilized and allowed by the OWNER on pipe six (6) inches in diameter and smaller shall be 12 inches minimum length. Mechanical Joints shall be used and on all pipes greater than six (6) inches in diameter.
7. PVC Expansion Couplings shall be allowed when transitioning from PVC to RJ PVC Pipe. The expansion couplings shall be provided by the manufacturer and be RJ on one end and slip joint on the other. The fitting shall be of the same material as the pipe, and in no case shall have thinner walls than that of the pipe furnished. The fitting for gasketed joint, RJ PVC pipe shall be molded in one (1) piece.

Ductile Iron Expansion Couplings shall be a ductile iron sleeve with a restraint-joint fitting on one side and slip-joint fitting on the other side.
8. All fittings shall be of the same material and diameter as the pipe to which it is connected or of a compatible material approved by the ENGINEER.
9. Ductile Iron flanged fittings shall conform to all requirements of AWWA C115.
10. Grooved joint fittings for ductile iron pipe shall conform to all requirements of AWWA C606.

52.04. PIPE APPURTENANCES

52.04.01. Manholes

Manholes for gravity pipe shall be standard 4-foot diameter precast reinforced concrete and conform to the requirements of Section 32 of the Standard Specifications except as hereinafter supplemented or modified.

1. Manhole Material

Only precast reinforced concrete manholes will be allowed.

2. Manhole Steps

Polypropylene coated steel reinforcing rods are the required type of step.

3. Standard Frame and Grate

Unless otherwise called for on the Drawings, all manholes shall have a cast iron frame and lid equal to Neenah No. R-1772, East Jordan No. 1022, or equal, but frame and lid shall together weigh no less than 400 pounds. The lid shall be a self-sealing type with concealed pick hole and a machined groove on its underside for receiving an elastomeric, continuous gasket. The gasket shall act as a seal between the lid and frame to prevent entry of surface water. The frame and lids shall have machined bearing surfaces. The CONTRACTOR shall supply the OWNER with spare lid gaskets equal in number to 10% of the number installed, plus two (2) new and unused lid lifting tools especially designed for removing manhole lids with concealed pick holes. Manhole lids shall be marked "SANITARY".

4. Bolt Down Lid Frame and Grate

Wherever "Bolt Down Lid" is designated on the Drawings, the manhole shall have a cast iron frame and bolt down lid with gasket equal to Neenah No. R-1916-C, or equal; all bearing surfaces shall be machined; lid and frame shall weigh no less than 320 pounds.

Unless otherwise shown on the Drawings, manhole castings shall be set at finish earth grade or roadway surface; manholes in cultivated areas shall have castings set 24 inches below existing grade. Grade rings of various thickness may be required to adjust the lids to the final grading conditions and will be considered incidental to the cost of the manholes.

5. Rain Stopper/ Inflow Protection Cover

Manholes with top of rim elevations lower than surrounding ground elevation shall have an inflow protection cover, of the appropriate size, installed in addition to the standard lid. The inflow protector cover shall be manufactured by Syneco Systems, Inc., Chanhassen, MN or equal and shall consist of the following components:

- a. ABS plastic construction;
- b. Strap handle;
- c. Bottom seal surface with gasket;
- d. Gas relief valve to relieve at pressure of 1 psi;
- e. Leak down rate limited to 10 gal/24 hrs.

6. Manhole Joints

Manhole joints shall be sealed with bituminous material for water tightness.

7. Pipe Connections

All pipe connections at manholes and other structures shall be made with cast-in-place rubber gaskets cast into the wall of the Precast manhole and secured to the pipe with an adjustable, stainless band; a mechanical seal with tapered, precast opening; or

other method approved by the ENGINEER which provides for a flexible, watertight penetration.

8. Chimney Seal

Wherever "Chimney seal" is designated on the Drawings an internal flexible rubber seal shall be provided between the manhole frame and chimney or corbel section of the manholes. The rubber seals shall be as manufactured by Cretex Specialty Products, Waukesha, Wisconsin or equal and shall consist of the following components:

- a. Rubber Sleeve - The flexible rubber sleeve shall be extruded from a high grade rubber compound conforming to the applicable requirements of ASTM C923, with hardness (durometer) of 45 ± 5 .

The sleeve shall be double pleated with a minimum unexpanded vertical expansion when installed of no less than two (2) inches. The top and bottom section of the sleeve shall contain an integrally formed expansion band recess and multiple sealing fins.

Any splice used to fabricate the sleeve shall be hot vulcanized and have a strength such that the sleeve shall withstand a 180 degree bend with no visible separation.

- b. Expansion Bands - The expansion bands used to compress the sleeve against the manhole shall be 16 gauge stainless steel conforming to ASTM A240, Type 304, with a minimum width of 1-3/4 inches.

The expansion mechanism shall have the capacity to develop the pressures necessary to make a watertight seal and shall have a minimum adjustment range of two (2) diameter inches. Screws and nuts used for this mechanism shall be stainless steel conforming to ASTM F593 and 594, Type 304.

52.04.02. Sanitary Service Sewers

Service sewers shall conform to the requirements of Section 33 of the Standard Specifications.

1. Service laterals shall be six (6) inches and be of the same material as the main, unless specified otherwise on the Drawings. All service laterals shall have a slope not less than 1% and be terminated with a cap.
2. No service laterals will be allowed to tie into the new manhole but instead will be tied to the new sewer adjacent to the manhole.
3. Set over manholes are required when connecting the new sanitary sewer main to an existing sanitary sewer line. A manhole base shall be poured around the existing sewer pipe. After the precast manhole is set on a concrete base and the pipe connections has been completed the top half of the existing sewer pipe that is exposed in the manhole shall be cut off and removed.

52.04.03. Quick Couple

Quick couples for emergency connections shall be as manufactured by the Camlock Flange Sales Corp., 449 Sheridan Blvd., Inwood, NY 11696; P.T. Coupling Co., Inc., P.O. Box 506, Enid, OK, or equal.

52.04.04. Valves

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52.04.05. Automatic Air Valves

Combination Air Release and Air/Vacuum Valves

These valves shall be an air/vacuum valve shall be in a meter box; a minimum two (2) inch diameter outlet shall be provided on the air/vacuum valve.

52.04.06. Valve Boxes

Valve boxes shall be of ductile iron. Boxes shall be of the extension type with screw adjustment and flared base. The minimum thickness of metal shall be 3/16 inch. The word "SEWER" shall be cast in the cover. Boxes shall be installed over each plug valve and gate valve. The boxes shall be of such a length that will permit adjustment in length, without full extension, to the depth of cover required over the pipe at the valve location. The CONTRACTOR shall supply extension stems, as necessary, where the sewer main is installed deeper than normal due to utilities, convenience, etc. This work shall be incidental to the Contract Price.

52.04.07. Ductile Iron Restraint Glands

Restraint for PVC and ductile iron pipe joined with standardized mechanical joint fittings shall be incorporated in the design of the follower gland and the PVC pipe restraining glands shall provide full circle contact and support of the pipe wall. Restraint shall be accomplished by a series of ring segments mechanically retained inside the gland housing and designed to grip the pipe wall in an even and uniform manner. Restraining ring segments shall be actuated by bolts featuring twist off heads. All components of the restrainer, including the gland bolts, and restraint segments shall be of high strength ductile iron, ASTM A536, Grade 65-45-12. Restraining devices shall be UL Listed/FM approved on PVC pipe and shall be certified by an independent testing facility as meeting or exceeding ASTM F1674, Standard Test Method for Joint Restraint Products for Use with PVC Pipe. Joint restraints shall be used at all fittings, gate valves, and hydrants, not requiring an anchor coupling, and shall be incidental to the contract price. Restraints shall be rated at a minimum of 200 psi.

52.04.08. Casing Spacers

Casing spacers for 6-inch sewer main and smaller shall be a polyethylene casing spacer which is injection molded from high density polyethylene. The compressive strength shall be greater than 3,100 psi and tensile strength shall be greater than 3,100 psi.

The casing spacers for sewer main larger than 6-inch shall be bolt on style with a shell made of two (2) sections of T-304 stainless steel or some other non-corrosive metal. All nuts and bolts are to be 18-8 stainless steel or equivalent non-corrosive material. The

runners shall be made of ultra high molecular weight polymer with high abrasion resistance and a low coefficient of friction.

Casing spacers shall be as manufactured by Cascade Waterworks Mfg. Co., or Recon Pipe Corporation - Raci Spacers, or approved equal.

During installation, either lock washers or lock nuts shall be used when bolting the spacers together. Casing spacers shall be installed on six (6) foot centers or three (3) to a pipe segment and shall be included in bid price for casing pipe.

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BORING SEWER MAINS

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BORING SEWER MAINS

Section 55

55.01. SCOPE OF WORK

The CONTRACTOR shall furnish all equipment, machinery, labor and materials necessary to perform all operations in connection with the conventional boring and pulling or directional boring of sewer mains of the required diameter and type of material at locations that may be designated at time of construction. **Gravity pipe bores must be at grade with little or no tolerance, see below.**

The CONTRACTOR is responsible for any charges by IDOT and others during the course of the work and shall include such costs in their bid price.

Unless otherwise noted in these specifications, trenchless construction shall abide by Section 23 of the Standard Specifications.

55.02. CONSTRUCTION DETAILS

The alignment and elevation of the forward end of the boring shall be checked and if it does not meet the requirements of the permit, the auger will be pulled and a new boring made at no additional cost to the OWNER.

The CONTRACTOR shall fill over excavation of bore and recovery pits at entrance and exit of sewer main through bore hole with compacted sand or CA-6 to the bottom of the sewer main giving a sound foundation for the sewer main preventing the sewer main from shearing as the backfill settles. Payment for the sand or CA-6 shall be considered incidental to the contract price for bores.

Any cracking or damage caused by the boring operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER.

55.03. MINIMUM DISTANCE FROM PAVEMENT

This section shows the maximum distance beyond road surfaces the bore payment will extend without approval of the ENGINEER.

| | |
|-------------------|---------|
| State Highways | 20 feet |
| County Highways | 20 feet |
| Township Roadways | 15 feet |
| Driveways | 10 feet |

55.04. STEEL CASING MINIMUM SPECIFICATIONS

Casing pipe used for sewer mains shall be ASTM A139 Grade B, welded pipe. The minimum wall thickness for casing pipe shall be as follows, unless otherwise noted on the Drawings:

| Pipe Diameter (in.) | Wall Thickness (in.)* |
|---------------------|-----------------------|
| 6 | 0.28 |
| 8 | 0.322 |
| 10 | 0.365 |
| 12 – 48 | 0.375 |

*Note: Railroad crossings require greater wall thickness. The CONTRACTOR shall use the steel casing wall thickness approved by the railroad.

The casing pipe shall be bituminous tar lined inside and coated outside. Where two (2) sections of casing are welded together, a bituminous tar coating shall be applied to the welded joint.

Certain installation practices are necessary to protect the sewer main that is required to go through the casing pipe. These practices are necessary to prevent the pipe from resting on the joints, and provide for retrieval if repairs are necessary in the future. Prior to inserting the sewer main in the casing, casing spacers as specified in Section 10 and 52.04.08 shall be installed on the full length of pipe.

Restrained-joint PVC pipe shall be used inside of the casing pipe, with expansion couplings at both ends exterior to the casing (see also Section 52 of these Specifications). After installing the carrier pipe, both ends of the casing pipe shall be sealed by a method approved by the ENGINEER.

55.05. DIRECTIONAL BORE METHOD

A. GENERAL

The CONTRACTOR shall bore where called for on the Drawings. Boring under state and federal interstate highways, under railroads, and all locations called out on the Drawings shall be accomplished from pits located per the boring permits. On-Grade bores must be at grade with an alignment tolerance of +/- 3 inches and a grade tolerance of +/- 2 inches. The CONTRACTOR shall be responsible for the cost to re-bore if it is outside of the tolerances listed above.

B. PRECEDURE

The CONTRACTOR shall use water, bentonite, polymer, or bentonite/polymer mixture for the mud mixture needed for the directional boring procedure and shall include the costs of these items in their unit bid price. The CONTRACTOR shall use the mixture required by the type of soil encountered.

The CONTRACTOR shall use the backreamer needed to satisfy the conditions of the directional bore and the type of soil encountered. Spiral or coned backreamers are

designed to push foreign objects such as rocks and tree roots out of the way or off to the side of the directional bore path. The surface area of the cone shaped backreamers is large so this will create a lot of drag. The wing cutter, which allows the mixed material to flow through, provides the best result in mixing.

For 8-inch or smaller pipe, a reamer larger than 1.5 times the diameter of the pipe should not be used without the permission of the ENGINEER. For 10-inch or larger pipe, a reamer of 1.3 times the diameter of the pipe or smaller is required, unless given permission by the ENGINEER.

It is recommended that the pipe follow immediately behind the backreamer or expander because the directional bore hole will start to close up instantly after the backreamer or expander is pulled through. This allows limited time, depending on the soil condition, to push the pipe in the hole.

C. DAMAGED PAVEMENT

Any cracking or damage caused by the directional boring operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER, the ENGINEER, or the property owner.

D. SPECIFIED DISTANCE FROM WATERWAYS

Since waterway surfaces and streambed/streambank profiles occur in such a variety of configurations, and since CONTRACTOR's may employ a number of methods for directional boring depending on pipe installation angle, convenience, etc., it is not possible to come up with a single rule for specified directional bore distances. An estimated directional bore length has been indicated on the Drawings for IEPA purposes for each particular directional bore, and also constitutes the minimum length that will be allowed physically for the directional bore. However, the payment for lengths longer than the length indicated on the plans will only be paid with approval of the ENGINEER. In all cases, open cut excavations for bore pits shall remain at least 20 feet away from top of stream banks.

55.06. BORE AND JACK METHOD

A. GENERAL

The CONTRACTOR shall bore and jack steel casing pipe where called for on the Drawings. Boring or jacking under state and federal interstate highways, under railroads, and all locations called out on the Drawings shall be accomplished from pits located per the boring permits. The bore must be at grade with an alignment tolerance of +/- 3 inches and a grade tolerance of +/- 2 inches.

B. DAMAGED PAVEMENT

Any cracking or damage caused by the bore and jack operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER, the ENGINEER, or the property owner.

55.07. DIRECTIONAL BORING ON GRADE CASING PIPE

A. MATERIAL

Casing pipe shall be as specified on Drawings, Road Permit, and Rail Road Permits.

B. PAYMENT

This work shall be completed according to Sections 55.03, 55.04, and 55.05 above. The payment shall be per lineal foot per the bid schedule "Directional Boring Casing Pipe On-Grade" for the material, diameter, and class as called out on the drawings. Payment will only be made for bores meeting tolerances listing in section 55.05. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

55.08. DIRECTIONAL BORING ON GRADE SEWER MAIN OR SERVICE LINE

A. MATERIAL

Carrier pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03 and 55.05 above. The payment shall be per lineal foot per the bid schedule "Directional Boring On-Grade" for the material, diameter, and class as called out on the drawings. Payment will only be made for bores meeting tolerances listing in section 55.05. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

55.09. DIRECTIONAL BORING CASING PIPE

A. MATERIAL

Casing pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03 and 55.05 above. The payment shall be per lineal foot per the bid schedule "Directional Boring Casing Pipe" for the material, diameter, and class as called out on the drawings. Payment for length beyond the lengths on the plans shall only be paid with approval of the ENGINEER.

55.10. DIRECTIONAL BORING FORCE MAIN OR FORCE SERVICE LINE

A. MATERIAL

Carrier pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03 and 55.05 above. The payment shall be per lineal foot per the bid schedule “Direction Boring Force Main” for the material, diameter, and class as called out on the drawings. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

55.11. BORE AND JACK CASING PIPE ON GRADE

A. MATERIAL

Casing pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03, 55.04, and 55.06 above. The payment shall be per lineal foot per the bid schedule “Bore and Jack Casing Pipe On-Grade” for the material, diameter, and class as called out on the drawings. Payment will only be made for bores meeting tolerances listing in section 55.06. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

55.12. BORE AND JACK CASING PIPE

A. MATERIAL

Casing pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03, 55.04, and 55.06 above. The payment shall be per lineal foot per the bid schedule “Bore and Jack Casing Pipe” for the material, diameter, and class as called out on the drawings. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

55.13. CARRIER PIPE IN CASING

A. MATERIAL

Carrier pipe shall be as specified on Drawings.

B. PAYMENT

Payment for the restrained-joint (RJ) PVC installed shall be based on the unit price of the bid schedule line item, “Restrained-Joint PVC – in Casing” for the appropriate size and

pressure classification of RJ PVC pipe utilized. The payment length of the RJ PVC pipe shall be equal to the pay length determined for each bore and then rounded up to the next full length of pipe, measured in lineal footage, when the main extends in a straight line in at least one direction. The payment length of the RJ PVC pipe shall be equal to the length between fittings when there is a fitting adjacent to each end of the bore. If the CONTRACTOR elects to use additional RJ pipe, the difference will be paid at the normal PVC pipe price being installed adjacent to the bore. The cost of expansion couplings shall be incidental to the “Restrained-Joint PVC – in Casing” price.

55.14. CARRIER PIPE IN DIRECTIONAL BORE

Carrier pipe is included in the unit price for directional bores, see above sections.

Grinder Pump Station

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Grinder Pump Station

Section 65

65.01 SCOPE OF WORK

The work to be performed under this section of the Technical Provisions shall include all labor, materials, equipment, and transportation necessary to provide and install grinder pump stations and related appurtenances as shown on the Drawings and specified herein.

The CONTRACTOR's prices for the grinder pump stations and appurtenances shall be categorized according to the Bid Form. All electrical equipment from and including the Control/Alarm Box to and including the Grinder Pump and labor necessary for a complete and working system shall be included by the CONTRACTOR among the various Bid Items listed in the Bid Form. Electric to the Control/Alarm Box is per section 82 of these Specifications.

65.02 GENERAL

A. Spare Parts

The CONTRACTOR shall be responsible for supplying the following spare pumps/stations:

One – Environment One Model WH092 Grinder Pump Station
One – Environment One Replacement Grinder Pump

65.03 SUBMERSIBLE PUMP STATION

A. General

The CONTRACTOR shall furnish and install submersible grinder pump stations as shown on the Drawings and specified herein.

The grinder pump station shall be as manufactured by Environment One Corporation, Niskayuna, NY, or equal. The installation shall be complete with simplex grinder pump, duplex if specified, mounted in high density polyethylene (HDPE) basin, NEMA 6P electrical quick disconnect (EQD), pump removal system, stainless steel discharge assembly/shut-off valve, anti-siphon valve/check valve, each assembled in the basin, electrical alarm panel and all necessary internal wiring and controls.

The CONTRACTOR shall be responsible for coordinating the renovation with the homeowners, paying any renovation, inspection, or new service charges as established by

the power company, and obtaining any power company permits, as may be necessary.

The CONTRACTOR shall be responsible for coordinating, implementing, and operating bypass pumping facilities to the extent that they need in order to accomplish the renovations while keeping system in operation.

B. Pumps

The pump in each pump station shall be integral, vertical rotor, motor driven, close coupled, electrically powered, and solids handling. The pump shall have a single mechanical seal, stainless steel rotor. The pumps and motors shall meet requirements of National Electric Code for such units.

The motors shall be non-overloading at any point on the pump curve, from shutoff head to zero head condition.

The pumps shall be capable of handling raw, unscreened sewage. The pump suction shall be at least 4 inches in diameter. The pump discharge piping shall be 1-1/4 inch diameter stainless steel.

All major parts, such as the stator casing, oil casing, sliding bracket, volute and impeller shall be cast iron, fully epoxy coated to 8-10 mil Nominal dry thickness, wet applied. All surfaces coming into contact with sewage shall be protected by a coating resistant to sewage. All exposed bolts and nuts shall be of stainless steel.

The pump shall be provided with a mechanical shaft seal to prevent leakage between the motor and pump. The seal shall have a stationary ceramic seat and carbon rotating surface with faces precision lapped and held in position by a stainless steel spring.

The stator shall be of a specifically compounded ethylene propylene synthetic elastomer. This material shall be suitable for domestic wastewater service. Its physical properties shall include high tear and abrasion resistance, grease resistance, water and detergent resistance, temperature stability, excellent aging properties, and outstanding wear resistance. Buna-N is not acceptable as a stator material.

C. Grinder

The grinder shall be placed immediately below the pumping elements and shall be direct-driven by a single, one-piece motor shaft. The impeller shall be non-clogging design capable of handling solids, fibrous material, heavy sludge and other matter found in normal sewage applications so as to minimize clogging and jamming under all normal operating conditions including starting.

The grinder impeller (cutter wheel) assembly shall be securely fastened to the pump motor shaft by means of a threaded connection attaching the grinder impeller to the motor shaft. The grinder impeller shall be a one-piece, 4140 cutter wheel of the rotating type

with inductively hardened cutter teeth. The cutter teeth shall be inductively hardened to Rockwell 50 – 60c for abrasion resistance. The shredder ring shall be of the stationary type and the material shall be white cast iron. The teeth shall be ground into the material to achieve effective grinding. The shredder ring shall have a staggered tooth pattern with only one edge engaged at a time, maximizing the cutting torque.

This assembly shall be dynamically balanced and operate without objectionable noise or vibration over the entire range of recommended operating pressures. Static and dynamic balancing operations shall not deform or weaken it.

D. Electric Motor

The electric pump motors for the pumps shall be designed to operate on 120/240 V, 1 phase, 60 cycle power. Each pump motor shall have moisture resistant Class F 155 degree Centigrade insulation. The motors shall be NEMA Design B and designed for continuous duty. The motor shall be press-fit into the casting for better heat transfer and longer winding life. Inherent protection against running overloads or locked rotor conditions for the pump motor shall be provided by the use of an automatic-reset, integral thermal overload protector incorporated into the motor. This motor protector combination shall have been specifically investigated and listed by Underwriters Laboratories, Inc., for the application.

Pump motor cable installed shall be suitable for submersible pump applications and this shall be indicated by a code or legend permanently embossed on the cable. Cable sizing shall conform to NEC specifications for pump motors and shall be of adequate size to allow motor voltage conversion without replacing the cable.

E. Tank

The tank shall be made of high density polyethylene, with a grade selected to provide the necessary environmental stress cracking resistance. Corrugated sections are to be made of a double wall construction with the internal wall being generally smooth to promote scouring.

The tank shall include a single NEMA 6P Electrical Quick Disconnect (EQD) for all power and control functions, factory installed with tank penetrations warranted by the manufacturer to be watertight. The EQD will be supplied with 32', 25' of useable Electrical Supply Cable (ESC) outside the station, to connect to the alarm panel. The ESC shall be installed in the basin by the manufacturer. The EQD shall be so designed to be conducive to field wiring as required.

The tank shall also include an integral 2-inch vent to prevent sewage gases from accumulating in the tank.

F. Valves

1. Check Valve

The pump discharge shall be equipped with a factory installed, gravity operated, flapper-type integral check valve built into the stainless steel discharge piping. The check valve shall provide full pipe diameter when in open position. Moving parts will be made of a 300 Series stainless steel and fabric reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, and fatigue strength. A nonmetallic hinge shall be an integral part of the flapper assembly providing a maximum degree of freedom to assure seating even at a very low back-pressure.

2. Anti-siphon Valve

The pump discharge shall be equipped with a factory-installed, gravity-operated, flapper-type integral anti-siphon valve built into the stainless steel discharge piping. Moving parts will be made of 300 Series stainless steel and fabric-reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, and fatigue strength. A nonmetallic hinge shall be an integral part of the flapper assembly, providing a maximum degree of freedom to ensure proper operation even at a very low pressure.

G. Controls

All necessary motor starting controls shall be located in the cast iron enclosure of the core unit secured by stainless steel fasteners. Locating the motor starting controls in a plastic enclosure is not acceptable.

The wastewater level sensing controls shall be housed in a separate enclosure from motor starting controls. The level sensor housing must be sealed via a radial type seal; solvents or glues are not acceptable. The level sensing control housing must be integrally attached to pump assembly so that it may be removed from the station with the pump and in such a way as to minimize the potential for the accumulation of grease and debris accumulation, etc. The level sensing housing must be a high-impact thermoplastic copolymer over-molded with a thermo plastic elastomer. The use of PVC for the level sensing housing is not acceptable.

Non-fouling wastewater level controls for controlling pump operation shall be accomplished by monitoring the pressure changes in an integral air column connected to a pressure switch. The air column shall be integrally molded from a thermoplastic elastomer suitable for use in wastewater and with excellent impact resistance. The air column shall have only a single connection between the water level being monitored and the pressure switch. Any connections are to be sealed radially with redundant O-rings. The level detection device shall have no moving parts in direct contact with the wastewater and shall be integral to the pump core assembly in a single, readily-exchanged unit. Depressing the push to run button must operate the pump even with the level sensor housing removed from the pump.

All fasteners throughout the assembly shall be 300 Series stainless steel.

High-level sensing will be accomplished in the manner detailed above by a separate air column sensor and pressure switch of the same type. Closure of the high-level sensing device will energize an alarm circuit as well as a redundant pump-on circuit. For increased reliability, pump ON/OFF and high-level alarm functions shall not be controlled by the same switch. Float switches of any kind, including float trees, will not be accepted due to the periodic need to maintain (rinsing, cleaning) such devices and their tendency to malfunction because of incorrect wiring, tangling, grease buildup, and mechanical cord fatigue. To assure reliable operation of the pressure switches, each core shall be equipped with a factory installed equalizer diaphragm that compensates for any atmospheric pressure or temperature changes.

The grinder pump will be furnished with a 6 conductor 14 gauge, type SJOW cable, pre-wired and watertight to meet UL requirements with a factory installed NEMA 6P EQD half attached to it.

H. Alarm Panel

Each grinder pump station shall include a NEMA 4X, UL-listed alarm panel suitable for wall or pole mounting. The NEMA 4X enclosure shall be manufactured of thermoplastic polyester to ensure corrosion resistance. The enclosure shall include a hinged, lockable cover with padlock, preventing access to electrical components, and creating a secured safety front to allow access only to authorized personnel. The enclosure shall not exceed 12.5" W x 16" H x 7.5" D.

The alarm panel shall contain one 15-amp, double-pole circuit breaker for the pump core's power circuit and one 15-amp, single-pole circuit breaker for the alarm circuit. The panel shall contain a push-to-run feature, an internal run indicator, and a complete alarm circuit. All circuit boards in the alarm panel are to be protected with a conformal coating on both sides and the AC power circuit shall include an auto resetting fuse.

The alarm panel shall include the following features: external audible and visual alarm; push-to-run switch; push-to-silence switch; redundant pump start; and high level alarm capability. The alarm sequence is to be as follows when the pump and alarm breakers are on:

1. When liquid level in the sewage wet-well rises above the alarm level, the contacts on the alarm pressure switch activate, audible and visual alarms are activated, and the redundant pump starting system is energized.
2. The audible alarm may be silenced by means of the externally mounted, push-to-silence button.
3. Visual alarm remains illuminated until the sewage level in the wet-well drops below the "off" setting of the alarm pressure switch.

The visual alarm lamp shall be inside a red, oblong lens at least 3.75" L x 2.38" W x 1.5" H. Visual alarm shall be mounted to the top of the enclosure in such a manner as to maintain NEMA 4X rating. The audible alarm shall be externally mounted on the bottom of the enclosure, capable of 93 dB @ 2 feet. The audible alarm shall be capable of being deactivated by depressing a push-type switch that is encapsulated in a weatherproof silicone boot and mounted on the bottom of the enclosure (push-to-silence button).

The entire alarm panel shall be listed by Underwriters Laboratories, Inc.

I. Service

The grinder pump core shall be easily removable for inspection or service, requiring no bolts, nuts, or other fastenings to be disconnected. The unit shall have two lifting hooks complete with lift-out harness connected to its top housing to facilitate easy core removal when necessary. The level sensor assembly must be easily removed from the pump assembly for service or replacement. All mechanical and electrical connections must provide easy disconnect capability for core unit removal and installation.

The manufacturer of the pumps furnished shall have a factory authorized service center within 100 miles of the project location. The service center shall maintain a minimum small parts inventory of \$50,000 and shall have the capability to test a repaired pump under water under conditions similar to those normally encountered in actual service. The service center shall have the normal capability to dispatch service personnel to the pump station for service or repair.

A service representative will spend a minimum of two (2) hours of startup supervision and job training for the City's operator after the pump stations have been completely installed, checked by the owner, Engineer, Manufacturer, and Operator and has been approved for startup and successfully started. In the event that the manufacturer's representative is called to the job site and it is found that the stations have not been completed or have a problem that renders incomplete startup and operation of all of the appurtenances, it shall be the responsibility of the CONTRACTOR to bring the factory trained service engineer back to the job site to provide the startup training. The service representative shall explain and demonstrate the operation of the pumps to a representative of the OWNER. The service representative at this time shall pass over to the OWNER's representative three (3) bound copies of the pump maintenance and operation manual.

A complete service report shall be made out and signed by the factory service representative and a representative of either the OWNER or PROJECT ENGINEER. Copies of the start-up report will be distributed as follows: One (1) copy each to the manufacturer's project file, consulting ENGINEER's project file, CONTRACTOR's project file and the OWNER's equipment file.

Road Permit

Intentionally Blank



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

FILE COPY

3/29/2017

PERMIT No. 8- 30429

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Attention: Mr. Kenny Woelfel

Dear Mr. Woelfel:

Attached are two approved copies of the above permit covering the construction and maintenance as described below:

NATURE OF IMPROVEMENT: Install Sanitary Sewer Main

ROUTE: SBI 127

SECTION: 110

STATION: 2093+30± to 2096+45±

COUNTY: Bond

Please notify Ms. Paula Lehmann at (618)346-3170 at this office at least 72 hours before this work is to be performed. Also, inform us when the work has been completed, so that a final inspection can be made.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

A blue ink handwritten signature, likely of Jeffrey L. Keirn, consisting of a stylized 'J' and 'K'.

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

PML:jcp/30429permitletter

Attachments

cc: District Bureau of Operations - Jason Roeckenhau



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

PERMIT No. 8-30429
ROUTE: SBI 127
MARKED ROUTE: IL 127
SECTION: 110
STATION: 2093+30± to 2096+45±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main

3/29/2017

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Dear Mr. Kenny Woelfel:

This permit must be completed within **180 days** unless a time extension is given. When the work is completed and the right of way is restored, please sign this letter as indicated below and return it to this office or email it to DOT.D8UtilityPermits@illinois.gov. Please include the permit number and county in the subject line of the email.

If you have any questions, please contact Paula Lehmann at (618) 346-3170.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

Completed this _____ day of _____, 20____.

Signed _____



Illinois Department of Transportation

Utility Permit

Public Improvement ☐ Yes ☐ No
 IDOT Permit No. 8-30429
 Utility Reference No. 40027-500

I (We) City of Greenville, 404 South 3rd St.
 Name of Applicant Mailing Address

Greenville, IL 62246, hereinafter termed the Permittee,
 City State & Zip

request permission and authority to occupy, and to do certain work herein described on, the right-of-way of the State highway

known as SBI Route 127 (IL Route 127), Section 110,
 from 2093+30 to 2096+45 in Bond County.

The work is described in detail below and/or on the attached sketch or plans.

As indicated on the attached plans, the City of Greenville proposes to install approximately 315 lineal feet of 1.5, 2, and 3-inch PVC and Polyethylene forced sanitary sewer main in the state ROW. Located from approximate highway sta. 2093+30 to 2096+45 on the north and northwest side of route 127, just west of Fifth Street and Southland Dr.

NO PAVEMENT OR DRAINAGE TO BE DISTURBED.

This permit covers the operation and presence of specified equipment, material or facility on the right-of-way that may be related to the authorized work. A copy of this permit must be present when crews or equipment occupy highway right-of way. Failure to comply may result in the cessation of all construction.

This permit is subject to conditions and restrictions of Part 530 of Title 92 of the Illinois Administrative Code, Accommodation of Utilities on Right-of-Way of the Illinois State Highway System. The removal, relocation or modification of facilities permitted to occupy the right-of-way is governed by Section 9-113 of the Illinois Highway Code, as amended by Public Act 92-0470. The Permittee agrees to comply with the requirements of these laws and with all terms and conditions established by this permit. This permit is subject to revocation by the Department on violation of the terms and conditions governing its use.

Daniel E. Miller 3/13/17
 Signature of Agent for Permittee Date

City of Greenville
 Name of Permittee (Print or Type)

404 South 3rd St.
 Mailing Address

Greenville IL 62246
 City State Zip

The work authorized by this permit shall be completed by _____ or within 180 days after the date of approval by the Department, otherwise the permit will be considered null and void.

Public Improvement Projects only: The anticipated letting date is _____

This permit allowing occupancy and work on state right-of-way is approved. The Utility Coordination Council established by the Department in the area covered by this permit is District 8 Collinsville UCC

[Signature] March 29, 2017
 Department of Transportation Date

This permit is subject to the conditions and restrictions established in accordance with the Illinois Highway Code and Part 530 of Title 92 of the Illinois Administrative Code including but not limited to the following:

- (1) The applicant represents all parties in interest and shall furnish material, do all work, pay all costs and shall in a reasonable length of time restore the damaged portions of the highway to a condition similar or equal to that existing before the commencement of the described work, including any landscape restoration necessary. (See Section 530.250 of Title 92).
- (2) The proposed work shall be located and constructed to the satisfaction of the Regional Engineer or his duly authorized representative. No revisions or additions shall be made to the proposed work on the right-of-way without the written permission of the Regional Engineer or his duly authorized representative (See Section 530.200 of Title 92). In certain circumstances the Department may require that the construction plans and/or the as-built documents be sealed by an Illinois Registered Professional Engineer. Typical of such projects would be petroleum or gas pipelines.
- (3) The applicant shall at all times conduct the work in such a manner as to minimize hazards to vehicular and pedestrian traffic. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by the applicant. (See Section 530.240 of Title 92).
- (4) The applicant must ascertain the presence of Highway Authority Agreements established in accordance with 35 Ill. Admin. Code Section 742.1020 in the path of its proposed installation and take precautions to protect its workers, human health and the environment in those areas. (See Section 530.240 of Title 92). Where contamination is encountered through excavation in the ROW, it should be managed offsite and IDOT's generator number for the appropriate county may be used.
- (5) The applicant shall not trim, cut or in any way disturb any trees or shrubbery along the highway without the approval of the Regional Engineer or his duly authorized representative. (See Section 530.600 of Title 92).
- (6) The facilities authorized to occupy the right-of-way by this permit are subject to removal, relocation or modification by the permittee at no expense to the State on notice given by the Department in accordance with Section 9-113 of the Illinois Highway Code, as amended. Participation by the permittee in the UTILITY Coordination Council identified on page one of this permit is required as a condition of this permit. Permittee shall cooperate with the Department with the scheduling of any removal, relocation or modification deemed necessary for highway or highway safety purposes, and, if Utility Coordination Council participation is required by this permit, with the activities of the council identified on the first page of this permit. (See Section 9-113 of the Illinois Highway Code.) Use of and compliance with current IDOT Traffic Control Standards will be required.
- (7) If the applicant and the District cannot agree either on whether the permit should be issued or on what conditions would be appropriate, the applicant may, within 30 days of the issuance of written notice of the District's position, appeal the District's determination to the Chief of the Department's Central Bureau of Operations. (See Section 530.900 of Title 92).
- (8) The permittee agrees to fully comply with the following legal obligations in advance of entering and while upon any Right-of-way within the Illinois State Highway System.
 - a) Only a permit issued by the Department under this Part will satisfy the "written consent" requirement of Section 9-113 of the Illinois Highway Code (the Code).
 - b) A permit from the Department grants a license only to undertake certain activities in accordance with this Part on a State right-of-way, and does not create a property right or grant authority to the permittee to impinge on the rights of others who may have an interest in the right-of-way. Such others might include an owner of an underlying fee simple interest if the right-of-way is owned as an easement or dedication of right of way, an owner of an easement, or another permittee.
 - c) It shall be the responsibility of the permittee to ascertain the presence and location of existing above-ground or underground facilities on the highway right-of-way to be occupied by their proposed facilities. The Department will make its permit records available to a permittee for the purpose of identifying possible facilities. When notified of an excavation or when requested by the Department, a permittee shall locate, physically mark, and indicate the depth of its underground facilities within 48 hours excluding weekends and holidays.
 - d) The permittee shall avoid conflicts with any existing underground or above-ground facilities on or near the highway right-of-way. Both the Department and J.U.L.I.E. are to be contacted for assistance during the application process.
 - e) The permittee shall comply with all other applicable laws relating to the placement of utility lines.
 - f) The issuance of a utility permit by the Department does not excuse the permittee from complying with any existing statutes, local regulations or requirements of other Department (e.g., oversize and overweight vehicles) or the requirements of other State agencies including, but not limited to, the following:

Illinois Commerce Commission, Illinois Department of Agriculture
Illinois Department of Natural Resources, Illinois Department of Mines and Minerals
Illinois Environmental Protection Agency, Illinois Historic Preservation Agency
 - g) Rights of abutting and underlying property owners are protected by common law and Sections 9-113 and 9-127 of the Code. The permittee will address these rights prior to initiating activities on State right-of-way. The Department will not be a party in any negotiations between the utility and abutting property owners.
 - h) In no case shall the permit give or be construed to give an entity any easement, leasehold or other property interest of any kind in, upon, under, above or along the State highway right-of-way.
 - i) Each person responsible for a utility, in place on the effective date of this Part, on a State highway right-of-way shall notify the Department in writing, if that facility does not comply with this Part. The Department shall treat such a notice as a request for a variance under Section 530.130. Until informed that a variance will not be granted, a person responsible for a pre-existing utility will not be in violation of this Part. The failure to provide such notice constitutes a violation of this Part and of the utility accommodation permit (if any) and would justify the imposition of the sanctions set forth in Section 530.810.

Work to be coordinated with Department Representatives:

Paula Lehmann

Phone 618 346-3170

Phone ()

Utility Contact Person: Bill Grider

Phone (618) 435-7380

Work to be done by: Heneghan & Associates-Seth Elliott

(618) 498-6418

Contractor: TBD

Daytime Phone: () Emergency Phone: ()

Traffic control operation:

Number of lane closures: _____ Time of closures: _____

DISTRICT 8 UTILITY PERMIT SHEET
APPLICABLE TO
PERMIT NO. 8-30429

Attached is a copy of TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES HIGHWAY CONSTRUCTION AND MAINTENANCE Standard No.(s) 701006 & 701001. These Standards are being attached to aid you in selecting the correct Application of Traffic Control to meet the conditions of your construction and does not relieve you of your responsibility of having the correct Traffic Control Devices if the above Standards do not fit your situation. If you have any questions concerning Traffic Control, please contact IDOT's Traffic Control Technician, Phone No. 618-346-3287, or the Department Representative.

The STATE OF ILLINOIS, DIVISION OF HIGHWAYS, shall in no way be held liable for any accidental breakage or damage to any installations that are installed within the State's right-of-way due to any maintenance work or operations of the DIVISION.

The applicant will be responsible for determining location of and protecting all State-owned facilities including buried facilities (such as Culverts, Storm Sewer Drainage, Traffic Signal Conduits, Lighting Conduits) and will be responsible for the cost of repair or replacement of any such facilities damaged as a result of the work covered herein.

Clean-up of the State's right-of-way shall immediately follow construction operations as the job progresses; and, shall not be left until all construction is completed. Maintenance of trenches, filling of settlement, cleaning out eroded dirt from highway ditches and drainage structures shall be a continuous operation. Upon completion of the work covered by this permit, final grading, reseeding, resodding, or any other requirements to restore the right-of-way to a condition equivalent to that which existed prior to the commencement of work shall be completed.

The sanitary sewer main installation shall maintain a minimum depth of 36".

Work shall be carried on in such a manner that traffic shall have full and unobstructed use of the pavement since actual construction work does not involve work in the traffic lanes.

Immediately following the described work, all excavation within the limits of the highway right-of-way shall be completely backfilled. The backfill shall be placed in layers of not over 6" each layer to be firmly tamped into place.

The Department is not a member of JULIE and does not locate its own facilities (such as underground conduit and/or cable for traffic signals or highway lighting). The applicant, at his/her own expense, must obtain the services of a qualified electrical contractor to locate such state-owned facilities.

Underground utility crossings without encasement will preclude future maintenance or repair in the area under the roadway and/or between ditch lines or toes of slopes.

Longitudinal utilities shall be located as near the right-of-way line as practicable and not more than (8) feet from and parallel to the right-of-way line.

The issuance of this utility permit by the Department does not excuse the permittee from obtaining the necessary approvals from the Corps of Engineers, Division of Waterway, Department of Public Health, and any other property owner, municipality, or agency that may be involved or have concerns with this procedure.

It is the applicants responsibility to keep all vegetation cut to a reasonable height around all of their above ground facilities within State right-of-way.

All exposed facilities, such as pedestals, manholes, end sections, monitoring wells, valves and/or meters, within State right-of-way should be clearly marked to avoid conflicts for the State's Maintenance work.

All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday.



HENEGHAN AND ASSOCIATES, P.C.

CIVIL ENGINEERS • LAND SURVEYORS

WWW.HAENGR.COM

Since 1986

March 14, 2017

Illinois Department of Transportation
Region 5 – District 8
Attn: Paula Lehmann
1102 Eastport Plaza Drive
Collinsville, Illinois 62234-6198

Re: Sunset Point and Mill Hill Sanitary Sewer Extension
City of Greenville
Bond County, Illinois
H&A File 40027-500

Dear Paula:

The City of Greenville, IL is requesting a permit to install approximately 315 lineal feet of 1.5, 2, and 3-inch PVC and Polyethylene forced main sanitary sewer main in the state R.O.W. along RTE 127, in locations as shown on attached plans.

All forced main installed longitudinally on state R.O.W. shall be installed in a 12" to 24" trench with a minimum depth of 44" (42" cover) and will be backfilled according to "Standard Specifications for Water and Sewer Construction in Illinois"

Locations are shown on the attached maps (plat book sheets) and construction drawings. The proposed mains will carry sanitary sewer and will be made of PVC pipe and polyethylene sized as shown on the construction plans. The requested longitudinal locations are as follows:

| State Hwy | Side of Road | Plan Sheet # | Section # | Township | Begin Station | End Station | Pipe Dia. | Approx. Distance (ft) | R.O.W. From Center | Dist. From R.O.W. |
|-----------|-----------------|--------------|-----------|----------------|---------------|-------------|---------------|-----------------------|--------------------|-------------------|
| Route 127 | North/Northwest | 9-5 & 9-6 | 10 | T.5N. R.3W. | 2093+30 | 2096+45 | 1.5, 2", & 3" | 315 | Varies | Varies |

See the enclosed location maps and aerial sheets for more details regarding the bore permit application. If you have any questions or require additional documentation, please call.

Sincerely,
HENEGHAN AND ASSOCIATES, P.C.

Kenny Woelfel, CESSWI
Engineering Technician

Encl.

c: HA File 40027-500

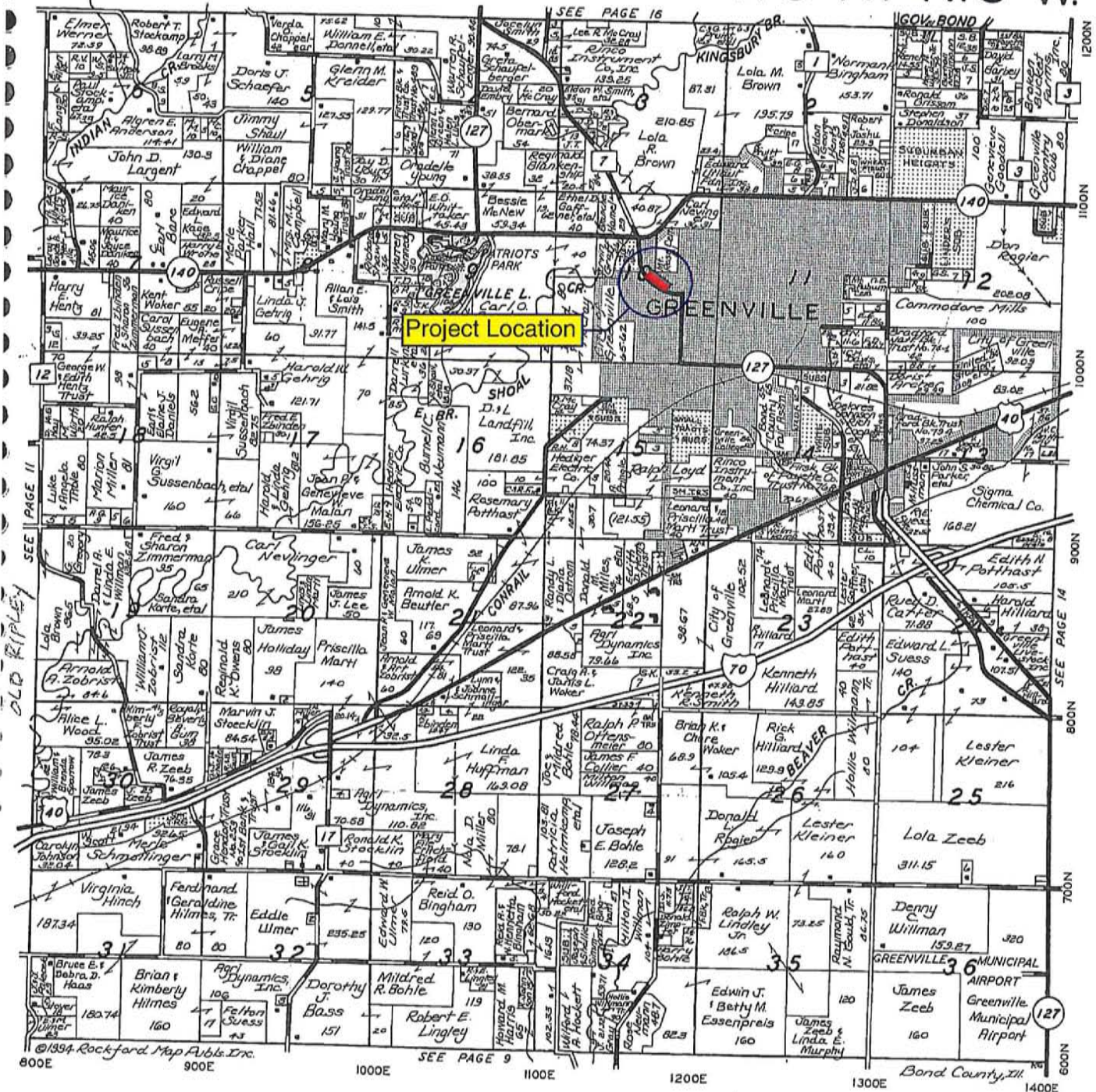
□ 838 East McCord
Centralia, IL 62801
(P) 618-533-6525
(F) 618-533-6652

□ 310A Vision Drive
Columbia, IL 62236
(P) 618-281-8133
(F) 618-281-8290

□ 5213D Mae Drive
Godfrey, IL 62035
(P) 618-466-8076
(F) 618-466-8078

□ 1004 State Highway 16
Jerseyville, IL 62052
(P) 618-498-6418
(F) 618-498-6410

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Ag & Business Accounting, Ltd.

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(618) 664-3311

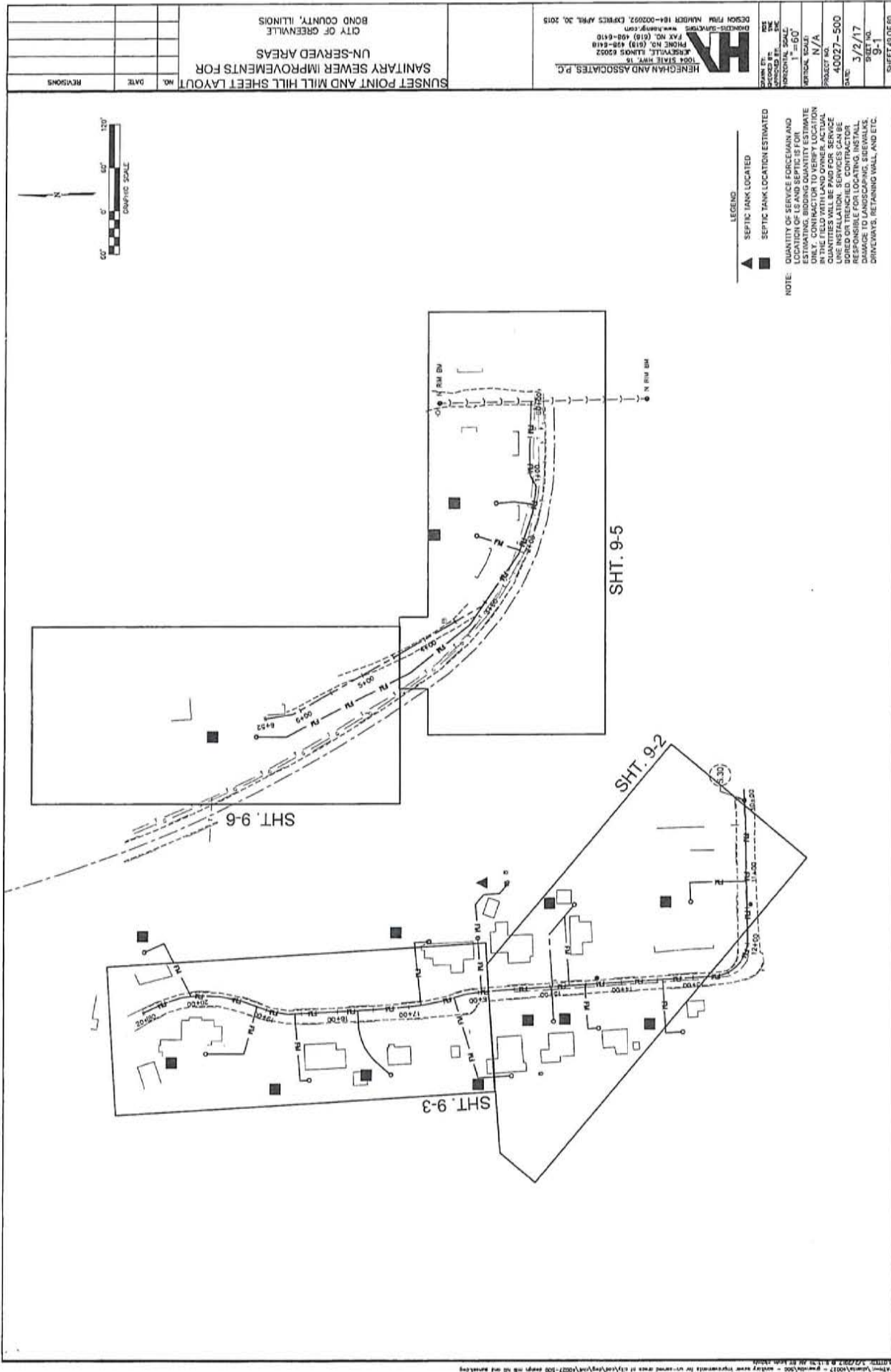
Lake & East Harris

Greenville

WALL

Real Estate

664-1267



NOTE: QUANTITY OF SERVICE FORCEMAN AND EQUIPMENT CAN VARY BASED ON FIELD ESTIMATING. BIDDING QUANTITY ESTIMATE ONLY. CONTRACTOR TO VERIFY LOCATION IN THE FIELD WITH LAND OWNER ACTUAL LOTS. CONTRACTOR TO VERIFY SERVICE LINE INSTALLATION. SERVICES CAN BE BORED OR TRENCHED. CONTRACTOR RESPONSIBLE FOR LOCATING, INSTALLING, AND TESTING ALL SEWER LINES, DRIVEWAYS, RETAINING WALL, AND ETC.

LEGEND
 ▲ SEPTIC TANK LOCATED
 ■ SEPTIC TANK LOCATION ESTIMATED

H
 HENEGHAN AND ASSOCIATES, P.C.
 1004 STATE STREET, SUITE 100
 JEFFERSONVILLE, ILLINOIS 62522
 PHONE NO. (618) 408-6418
 FAX NO. (618) 408-6410
 DESIGN FIRM NUMBER 18-4-002092, EXPIRES APRIL 30, 2015

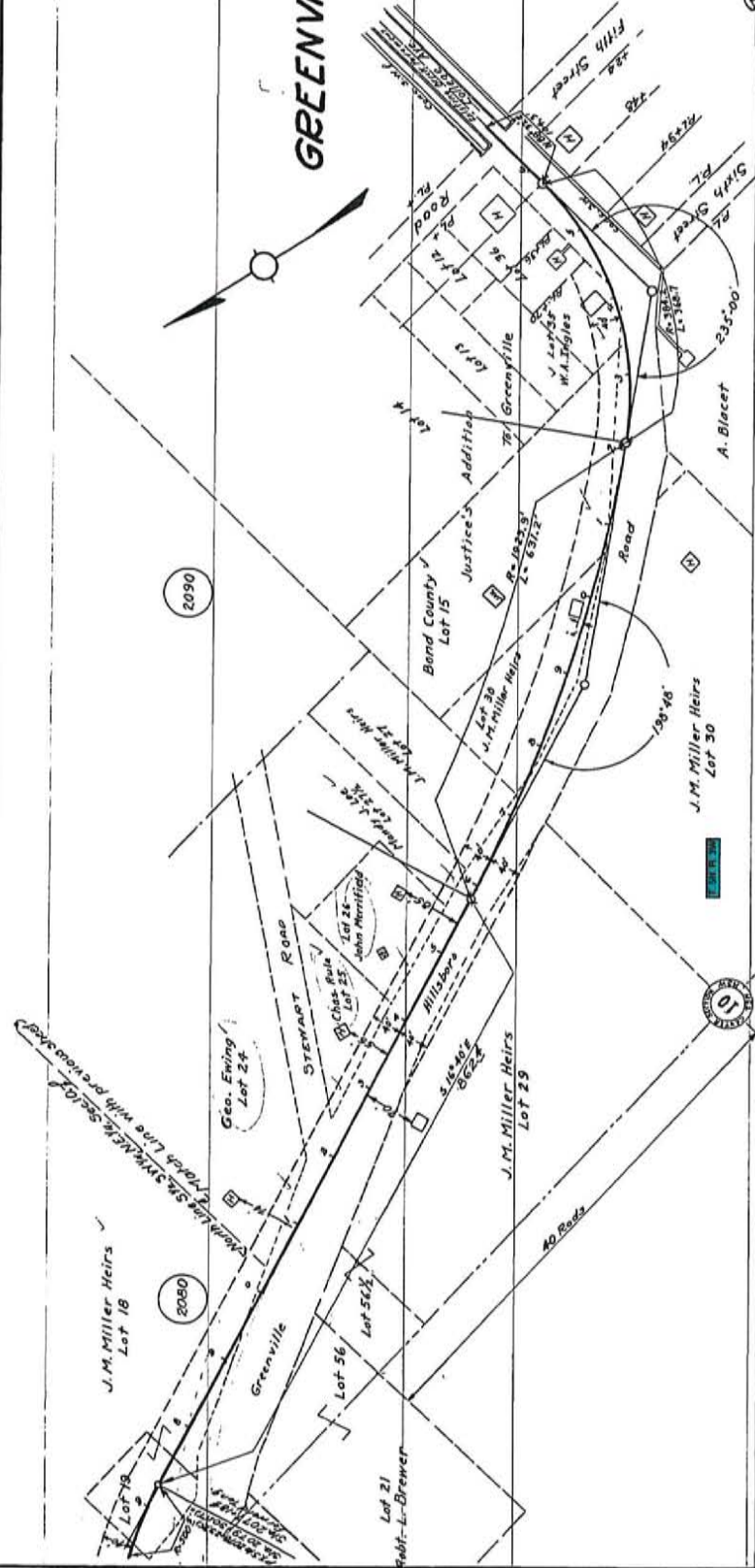
SUNSET POINT AND MILL HILL SHEET LAYOUT
 SANITARY SEWER IMPROVEMENTS FOR
 UN-SERVED AREAS
 CITY OF GREENVILLE
 BOND COUNTY, ILLINOIS

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |
| | | |
| | | |
| | | |

SHEET 48 OF 83

BOND COUNTY - ROUTE 127 - SECTION

T.S.N., R.3 N. 3rd PM



I do hereby certify that this is a correct plat of a portion of State Highway known as State Bond Route 127 as now surveyed and staked out by the Department of Public Works and Buildings of State of Illinois

Aug. 11, 1930 Chas. M. Szymanski District Engineer

Scale 1"=100'

108

Lehmann, Paula M

From: Roeckenhaus, Jason R
Sent: Monday, March 27, 2017 1:20 PM
To: Lehmann, Paula M
Subject: RE: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

No issues other than want no risers, boxes, etc. in ditch. Please place utility as far as possible near r.o.w. line.

From: Lehmann, Paula M
Sent: Friday, March 24, 2017 1:59 PM
To: Roeckenhaus, Jason R
Subject: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

Please, investigate the attached utility permit applications; and, return with any recommendations. If applications cannot be investigated within 2 weeks, please advise.

Ms. Paula Lehmann
Permits and Agreements Technician
Division of Highways/District 8
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234-6198
Telephone (618) 346-3170
Fax (618) 346-3162
paula.lehmann@illinois.gov

Please consider the environment before printing this e-mail

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Illinois Department of Transportation

Memorandum

To: District Bureau of Operations - Jim Wessel
From: Project Support Paula Lehmann
Subject: INVESTIGATION OF UTILITY PERMIT APPLICATION
Date: 3/24/2017

PERMIT NO.: 8- 30429
APPLICANT: City of Greenville
ROUTE: SBI 127
MARKED ROUTE: IL 127
SECTION: 110
STATION: 2093+30± to 2096+45±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main

Please investigate the attached utility permit application; and, return with any recommendations.

Note below any special requirements you consider necessary in the permit. If application cannot be investigated within two weeks, please advise.

REMARKS:

No Known IDOT ELECTRICAL FACILITIES HERE

3-27-17

No Access Permit Conflicts
LMS 3-28-17

Attachments



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

FILE COPY

3/29/2017

PERMIT No. 8- 30428

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Attention: Mr. Kenny Woelfel

Dear Mr. Woelfel:

Attached are two approved copies of the above permit covering the construction and maintenance as described below:

NATURE OF IMPROVEMENT: Install Sanitary Sewer Main

ROUTE: SBI 11

SECTION: Q

STATION: 19+25± to 31+25±

COUNTY: Bond

Please notify Ms. Paula Lehmann at (618)346-3170 at this office at least 72 hours before this work is to be performed. Also, inform us when the work has been completed, so that a final inspection can be made.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

A handwritten signature in blue ink, appearing to be 'JL Keirn'.

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

PML:jcp/30428permitletter
Attachments

cc: District Bureau of Operations - Jason Roeckenhau



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

PERMIT No. 8-30428
ROUTE: SBI 11
MARKED ROUTE: IL 140
SECTION: Q
STATION: 19+25± to 31+25±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main

3/29/2017

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Dear Mr. Kenny Woelfel:

This permit must be completed within **180 days** unless a time extension is given. When the work is completed and the right of way is restored, please sign this letter as indicated below and return it to this office or email it to DOT.D8UtilityPermits@illinois.gov. Please include the permit number and county in the subject line of the email.

If you have any questions, please contact Paula Lehmann at (618) 346-3170.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

Completed this _____ day of _____, 20____.

Signed _____



Illinois Department of Transportation

Utility Permit

Public Improvement ☐ Yes ☐ No
 IDOT Permit No. 8-30428
 Utility Reference No. _____

I (We) City of Greenville, 404 South 3rd St.
 Name of Applicant Mailing Address

Greenville, IL 62246, hereinafter termed the Permittee.
 City State & Zip

request permission and authority to occupy, and to do certain work herein described on, the right-of-way of the State highway

known as SBI Route 11 (IL Route 140), Section Q,
 from 19+25 to 31+25 in Bond County.

The work is described in detail below and/or on the attached sketch or plans.

As indicated on the attached plans the City proposes to install approximately 1200 Lineal feet of 8-inch PVC sanitary sewer main in state ROW longitudinal to State Route 140. This work includes one crossing near sta. 31+25 to be accomplished by the Bore and Jack method of installation. The Restrained Joint PVC carrier pipe will be cased at the crossing.

NO PAVEMENT OR DRAINAGE TO BE DISTURBED.

This permit covers the operation and presence of specified equipment, material or facility on the right-of-way that may be related to the authorized work. A copy of this permit must be present when crews or equipment occupy highway right-of way. Failure to comply may result in the cessation of all construction.

This permit is subject to conditions and restrictions of Part 530 of Title 92 of the Illinois Administrative Code, Accommodation of Utilities on Right-of-Way of the Illinois State Highway System. The removal, relocation or modification of facilities permitted to occupy the right-of-way is governed by Section 9-113 of the Illinois Highway Code, as amended by Public Act 92-0470. The Permittee agrees to comply with the requirements of these laws and with all terms and conditions established by this permit. This permit is subject to revocation by the Department on violation of the terms and conditions governing its use.

Daniel E. Willey 3/13/17
 Signature of Agent for Permittee Date

City of Greenville
 Name of Permittee (Print or Type)

404 South 3rd St.
 Mailing Address

Greenville IL 62246
 City State Zip

The work authorized by this permit shall be completed by _____ or within 180 days after the date of approval by the Department, otherwise the permit will be considered null and void.

Public Improvement Projects only: The anticipated letting date is _____

This permit allowing occupancy and work on state right-of-way is approved. The Utility Coordination Council established by the Department in the area covered by this permit is District 8 Collinsville UCC

[Signature] March 29, 2017
 Department of Transportation Date

This permit is subject to the conditions and restrictions established in accordance with the Illinois Highway Code and Part 530 of Title 92 of the Illinois Administrative Code including but not limited to the following:

- (1) The applicant represents all parties in interest and shall furnish material, do all work, pay all costs and shall in a reasonable length of time restore the damaged portions of the highway to a condition similar or equal to that existing before the commencement of the described work, including any landscape restoration necessary. (See Section 530.250 of Title 92).
- (2) The proposed work shall be located and constructed to the satisfaction of the Regional Engineer or his duly authorized representative. No revisions or additions shall be made to the proposed work on the right-of-way without the written permission of the Regional Engineer or his duly authorized representative (See Section 530.200 of Title 92). In certain circumstances the Department may require that the construction plans and/or the as-built documents be sealed by an Illinois Registered Professional Engineer. Typical of such projects would be petroleum or gas pipelines.
- (3) The applicant shall at all times conduct the work in such a manner as to minimize hazards to vehicular and pedestrian traffic. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by the applicant. (See Section 530.240 of Title 92).
- (4) The applicant must ascertain the presence of Highway Authority Agreements established in accordance with 35 Ill. Admin. Code Section 742.1020 in the path of its proposed installation and take precautions to protect its workers, human health and the environment in those areas. (See Section 530.240 of Title 92). Where contamination is encountered through excavation in the ROW, it should be managed offsite and IDOT's generator number for the appropriate county may be used.
- (5) The applicant shall not trim, cut or in any way disturb any trees or shrubbery along the highway without the approval of the Regional Engineer or his duly authorized representative. (See Section 530.600 of Title 92).
- (6) The facilities authorized to occupy the right-of-way by this permit are subject to removal, relocation or modification by the permittee at no expense to the State on notice given by the Department in accordance with Section 9-113 of the Illinois Highway Code, as amended. Participation by the permittee in the UTILITY Coordination Council identified on page one of this permit is required as a condition of this permit. Permittee shall cooperate with the Department with the scheduling of any removal, relocation or modification deemed necessary for highway or highway safety purposes, and, if Utility Coordination Council participation is required by this permit, with the activities of the council identified on the first page of this permit. (See Section 9-113 of the Illinois Highway Code.) Use of and compliance with current IDOT Traffic Control Standards will be required.
- (7) If the applicant and the District cannot agree either on whether the permit should be issued or on what conditions would be appropriate, the applicant may, within 30 days of the issuance of written notice of the District's position, appeal the District's determination to the Chief of the Department's Central Bureau of Operations. (See Section 530.900 of Title 92).
- (8) The permittee agrees to fully comply with the following legal obligations in advance of entering and while upon any Right-of-way within the Illinois State Highway System.
 - a) Only a permit issued by the Department under this Part will satisfy the "written consent" requirement of Section 9-113 of the Illinois Highway Code (the Code).
 - b) A permit from the Department grants a license only to undertake certain activities in accordance with this Part on a State right-of-way, and does not create a property right or grant authority to the permittee to impinge on the rights of others who may have an interest in the right-of-way. Such others might include an owner of an underlying fee simple interest if the right-of-way is owned as an easement or dedication of right of way, an owner of an easement, or another permittee.
 - c) It shall be the responsibility of the permittee to ascertain the presence and location of existing above-ground or underground facilities on the highway right-of-way to be occupied by their proposed facilities. The Department will make its permit records available to a permittee for the purpose of identifying possible facilities. When notified of an excavation or when requested by the Department, a permittee shall locate, physically mark, and indicate the depth of its underground facilities within 48 hours excluding weekends and holidays.
 - d) The permittee shall avoid conflicts with any existing underground or above-ground facilities on or near the highway right-of-way. Both the Department and J.U.L.I.E. are to be contacted for assistance during the application process.
 - e) The permittee shall comply with all other applicable laws relating to the placement of utility lines.
 - f) The issuance of a utility permit by the Department does not excuse the permittee from complying with any existing statutes, local regulations or requirements of other Department (e.g., oversize and overweight vehicles) or the requirements of other State agencies including, but not limited to, the following:

Illinois Commerce Commission, Illinois Department of Agriculture
Illinois Department of Natural Resources, Illinois Department of Mines and Minerals
Illinois Environmental Protection Agency, Illinois Historic Preservation Agency
 - g) Rights of abutting and underlying property owners are protected by common law and Sections 9-113 and 9-127 of the Code. The permittee will address these rights prior to initiating activities on State right-of-way. The Department will not be a party in any negotiations between the utility and abutting property owners.
 - h) In no case shall the permit give or be construed to give an entity any easement, leasehold or other property interest of any kind in, upon, under, above or along the State highway right-of-way.
 - i) Each person responsible for a utility, in place on the effective date of this Part, on a State highway right-of-way shall notify the Department in writing, if that facility does not comply with this Part. The Department shall treat such a notice as a request for a variance under Section 530.130. Until informed that a variance will not be granted, a person responsible for a pre-existing utility will not be in violation of this Part. The failure to provide such notice constitutes a violation of this Part and of the utility accommodation permit (if any) and would justify the imposition of the sanctions set forth in Section 530.810.

Work to be coordinated with Department Representatives:

Paula Lehmann

Phone 618 346-3170

Phone ()

Utility Contact Person:

Bill Grider

Phone (618) 435-7380

Heneghan & Associates-Seth Elliott

(618) 498-6418

Work to be done by:

Contractor:

TBD

Daytime Phone:

()

Emergency Phone:

()

Traffic control operation:

Number of lane closures:

Time of closures:

DISTRICT 8 UTILITY PERMIT SHEET
APPLICABLE TO
PERMIT NO. 8- 30428

Attached is a copy of TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES HIGHWAY CONSTRUCTION AND MAINTENANCE Standard No.(s) 701006 & 701001. These Standards are being attached to aid you in selecting the correct Application of Traffic Control to meet the conditions of your construction and does not relieve you of your responsibility of having the correct Traffic Control Devices if the above Standards do not fit your situation. If you have any questions concerning Traffic Control, please contact IDOT's Traffic Control Technician, Phone No. 618-346-3287, or the Department Representative.

The STATE OF ILLINOIS, DIVISION OF HIGHWAYS, shall in no way be held liable for any accidental breakage or damage to any installations that are installed within the State's right-of-way due to any maintenance work or operations of the DIVISION.

The applicant will be responsible for determining location of and protecting all State-owned facilities including buried facilities (such as Culverts, Storm Sewer Drainage, Traffic Signal Conduits, Lighting Conduits) and will be responsible for the cost of repair or replacement of any such facilities damaged as a result of the work covered herein.

Clean-up of the State's right-of-way shall immediately follow construction operations as the job progresses; and, shall not be left until all construction is completed. Maintenance of trenches, filling of settlement, cleaning out eroded dirt from highway ditches and drainage structures shall be a continuous operation. Upon completion of the work covered by this permit, final grading, reseeding, resodding, or any other requirements to restore the right-of-way to a condition equivalent to that which existed prior to the commencement of work shall be completed.

The sanitary sewer main installation under conventional highways shall be installed by means of boring at a minimum depth of 36" below the elevation of the bottom of roadway pavement and/or flow lines of ditches. The minimum length of bore shall extend a distance of 10' beyond the outer edges of the highway pavement or as otherwise specified by IDOT's Utility Permit Technician.

The sanitary sewer main installation shall maintain a minimum depth of 36".

Work shall be carried on in such a manner that traffic shall have full and unobstructed use of the pavement since actual construction work does not involve work in the traffic lanes.

Immediately following the described work, all excavation within the limits of the highway right-of-way shall be completely backfilled. The backfill shall be placed in layers of not over 6" each layer to be firmly tamped into place.

The Department is not a member of JULIE and does not locate its own facilities (such as underground conduit and/or cable for traffic signals or highway lighting). The applicant, at his/her own expense, must obtain the services of a qualified electrical contractor to locate such state-owned facilities.

Underground utility crossings without encasement will preclude future maintenance or repair in the area under the roadway and/or between ditch lines or toes of slopes.

Longitudinal utilities shall be located as near the right-of-way line as practicable and not more than (8) feet from and parallel to the right-of-way line.

The issuance of this utility permit by the Department does not excuse the permittee from obtaining the necessary approvals from the Corps of Engineers, Division of Waterway, Department of Public Health, and any other property owner, municipality, or agency that may be involved or have concerns with this procedure.

It is the applicants responsibility to keep all vegetation cut to a reasonable height around all of their above ground facilities within State right-of-way.

All exposed facilities, such as pedestals, manholes, end sections, monitoring wells, valves and/or meters, within State right-of-way should be clearly marked to avoid conflicts for the State's Maintenance work.

All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday.



HENEGHAN AND ASSOCIATES, P.C.

CIVIL ENGINEERS • LAND SURVEYORS

WWW.HAENGR.COM

Since 1986

March 14, 2017

Illinois Department of Transportation
Region 5 – District 8
Attn: Paula Lehmann
1102 Eastport Plaza Drive
Collinsville, Illinois 62234-6198

Re: 140 West & Red Ball Trail San. Sewer Ext.
City of Greenville
Bond County, Illinois
H&A File 40027-500

Dear Ms. Lehmann:

The following is a request on behalf of the City of Greenville, IL (404 South 3rd Street, Greenville, IL 62246) to Bore and Jack a 24" steel casing with an 8" PVC gravity sewer main beneath Illinois Route 140 in one location. The City also proposes to install 8-inch gravity sewer main longitudinally as indicated on the attached plan sheets and maps (plat book sheet). The proposed crossing will be at approximate highway sta. 31+25. The longitudinal installation from approximate highway sta. 19+25 to 31+25 on the north side of Route 140. All trench backfill will be per the Standard Specifications Water and sewer construction in Illinois.

The requested boring location as follows:

Bore Chart

| Bore No. | IDOT Roadway | Plan Sheet No. | Approx. Roadway Sta. | Steel Casing Dia. (in) | Sewer Main Dia.(in.) | Bore Length | Township | Section |
|----------|--------------|----------------|----------------------|------------------------|----------------------|-------------|-------------|---------|
| 1 | IL Rt. 140 | 11-2 | 31+25 | 24 | 8 | 30 | T.5N.-R.3W. | 2 |

The requested longitudinal location is as follows:

| State Hwy | Side of Road | Plan Sheet # | Section # | Township | Begin Station | End Station | Pipe Dia. | Approx. Distance (ft) | R.O.W. From Center | Dist. From R.O.W. |
|-----------|--------------|--------------|-----------|-------------|---------------|-------------|-----------|-----------------------|--------------------|-------------------|
| Route 140 | North | 11-2 & 11-4 | 2 | T.5N. R.3W. | 19+25 | 31+25 | 8" | 1,200 | Varies | Varies |

See the enclosed location map, plan sheets, and page(s) of specifications for more details regarding this permit application. If you have any questions or require additional documentation, please call Kenny Woelfel at 618-498-6418 or e-mail kewoelfel@heneghanassoc.com.

□ 838 East McCord
Centralia, IL 62801
(P) 618-533-6525
(F) 618-533-6552

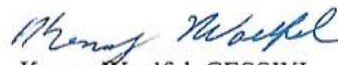
□ 310A Vision Drive
Columbia, IL 62236
(P) 618-281-8133
(F) 618-281-8290

□ 5213D Mae Drive
Godfrey, IL 62035
(P) 618-466-8076
(F) 618-466-8078

Y □ 1004 State Highway 16
Jerseyville, IL 62052
(P) 618-498-6418
(F) 618-498-6410

"DEDICATING OUR SERVICES TO STRENGTHEN CLIENT TRUST"

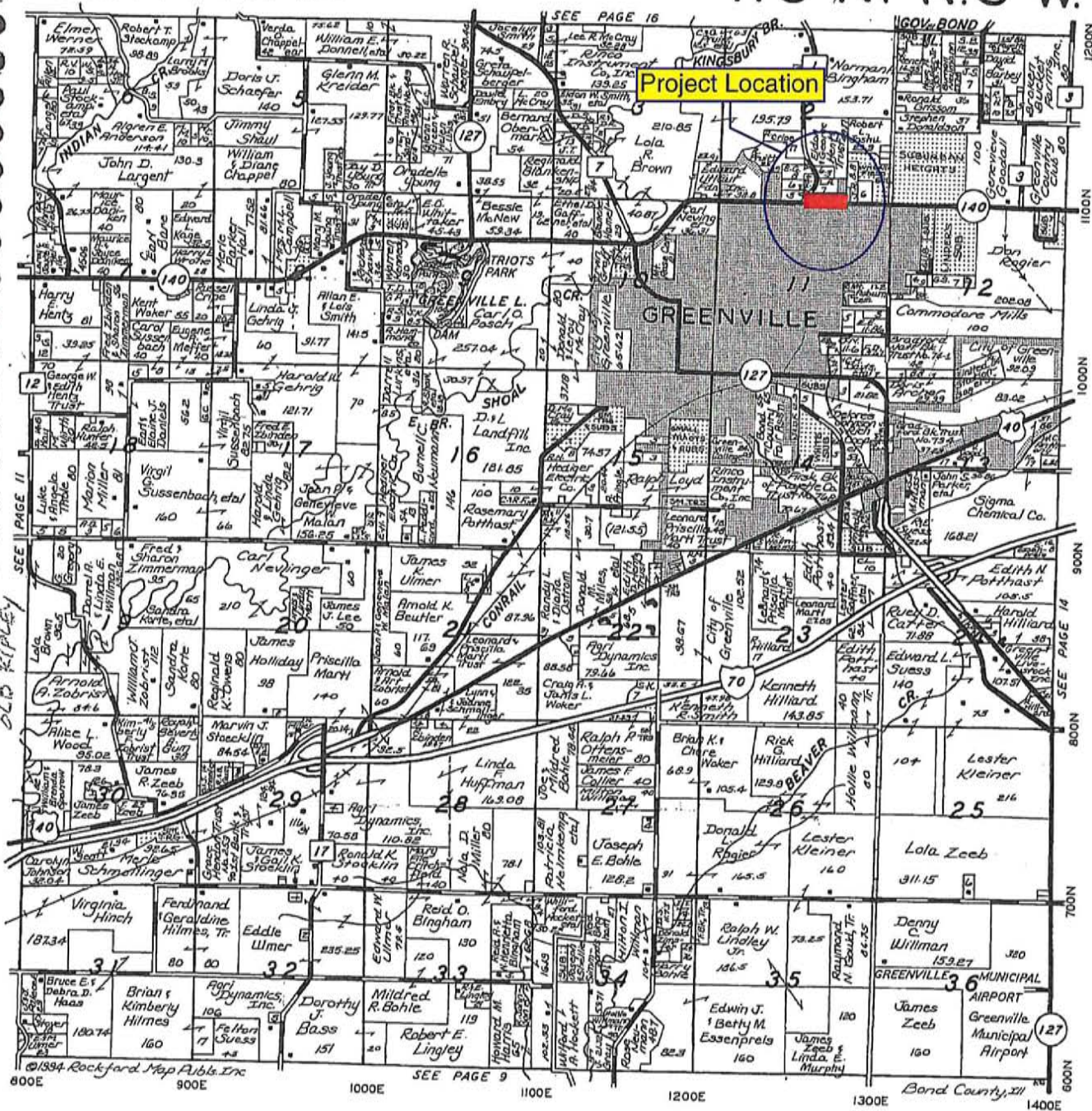
Sincerely,
HENEGHAN AND ASSOCIATES, P.C.

A handwritten signature in blue ink, appearing to read "Kenny Woelfel", is written over the printed name.

Kenny Woelfel, CESSWI
Engineering Technician

Encl.

c: HA File 40027-500
City of Greenville



Ag & Business Accounting, Ltd.

COMPUTERIZED LASER PRINTED
INCOME TAX & ACCOUNTING



Farms • Individual • Business

Notary Public

(618) 664-3311

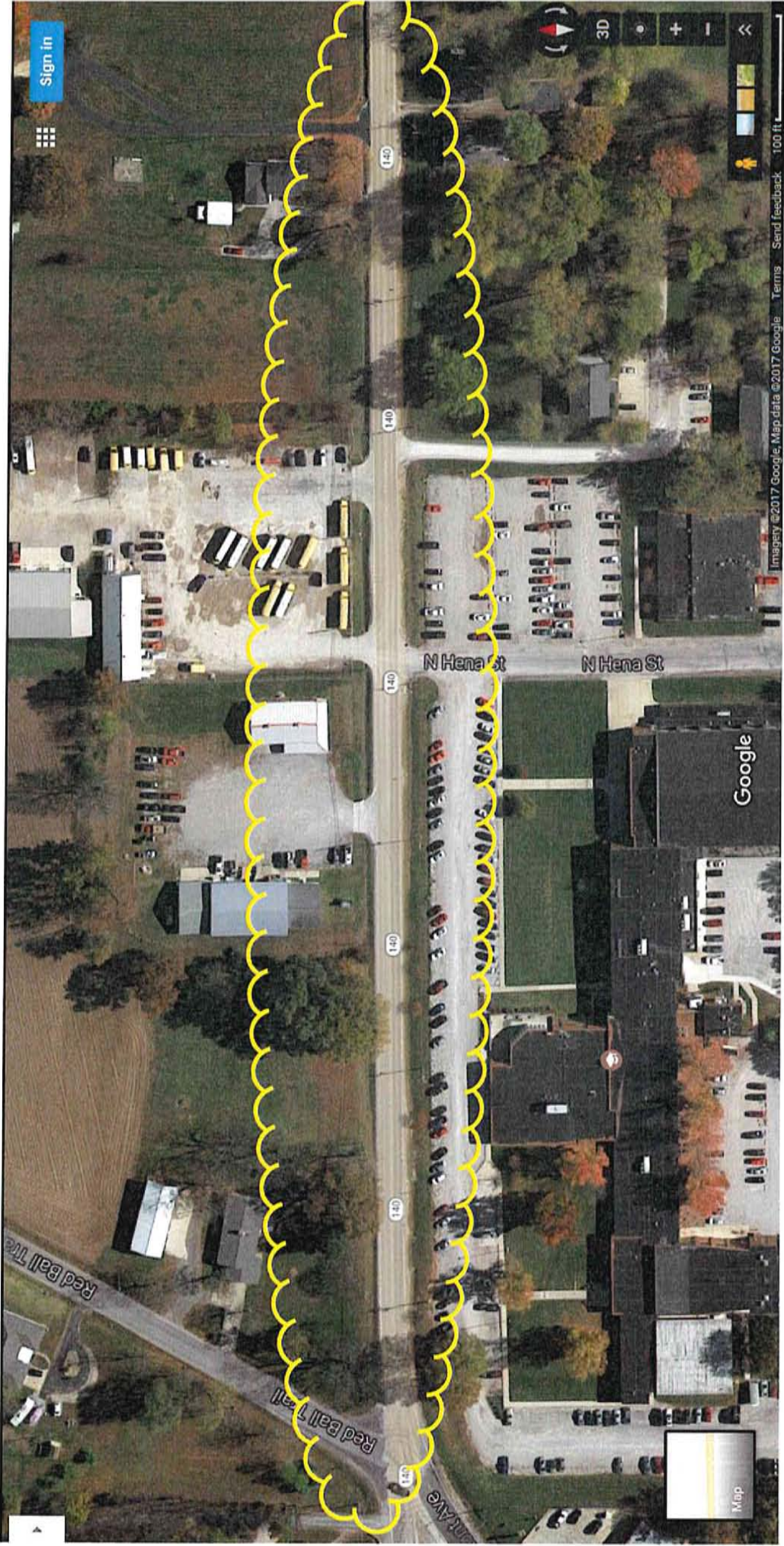
Lake & East Harris

Greenville

WALL

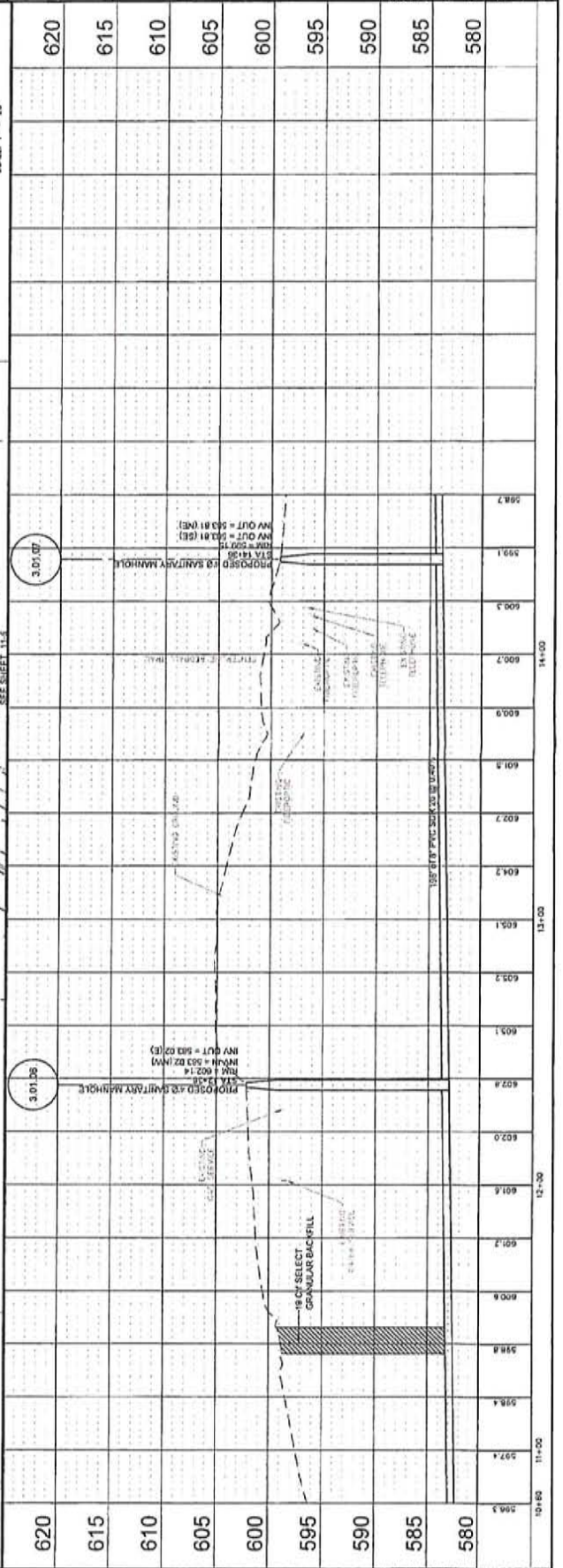
Real Estate

664-1267





CITY OF GREENVILLE
BOND COUNTY, ILLINOIS



55.01. SCOPE OF WORK

The CONTRACTOR shall furnish all equipment, machinery, labor and materials necessary to perform all operations in connection with the conventional boring and pulling or directional boring of sewer mains of the required diameter and type of material at locations that may be designated at time of construction. **Gravity pipe bores must be at grade with little or no tolerance, see below.**

The CONTRACTOR is responsible for any charges by IDOT and others during the course of the work and shall include such costs in their bid price.

Unless otherwise noted in these specifications, trenchless construction shall abide by Section 23 of the Standard Water and Sewer Specs.

55.02. CONSTRUCTION DETAILS

The alignment and elevation of the forward end of the boring shall be checked and if it does not meet the requirements of the permit, the auger will be pulled and a new boring made at no additional cost to the OWNER.

The CONTRACTOR shall fill over excavation of bore and recovery pits at entrance and exit of sewer main through bore hole with compacted sand or CA-6 to the bottom of the sewer main giving a sound foundation for the sewer main preventing the sewer main from shearing as the backfill settles. Payment for the sand or CA-6 shall be considered incidental to the contract price for bores.

Any cracking or damage caused by the boring operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER.

55.03. MINIMUM DISTANCE FROM PAVEMENT

This section shows the maximum distance beyond road surfaces the bore payment will extend without approval of the ENGINEER.

| | |
|-------------------|---------|
| State Highways | 20 feet |
| County Highways | 20 feet |
| Township Roadways | 15 feet |
| Driveways | 10 feet |

55.04. STEEL CASING MINIMUM SPECIFICATIONS

Casing pipe used for sewer mains shall be ASTM A139 Grade B, welded pipe. The minimum wall thickness for casing pipe shall be as follows, unless otherwise noted on the Drawings:

| Pipe Diameter (in.) | Wall Thickness (in.)* |
|---------------------|-----------------------|
| 6 | 0.28 |
| 8 | 0.322 |
| 10 | 0.365 |
| 12 – 48 | 0.375 |

*Note: Railroad crossings require greater wall thickness. The CONTRACTOR shall use the steel casing wall thickness approved by the railroad.

The casing pipe shall be bituminous tar lined inside and coated outside. Where two (2) sections of casing are welded together, a bituminous tar coating shall be applied to the welded joint.

Certain installation practices are necessary to protect the sewer main that is required to go through the casing pipe. These practices are necessary to prevent the pipe from resting on the joints, and provide for retrieval if repairs are necessary in the future. Prior to inserting the sewer main in the casing, casing spacers as specified in Section 10.04.07 and 52.04.09 shall be installed on the full length of pipe.

Restrained-joint PVC pipe shall be used inside of the casing pipe, with expansion couplings at both ends exterior to the casing (see also Section 52 of these Specifications). After installing the carrier pipe, both ends of the casing pipe shall be sealed by a method approved by the ENGINEER.

55.05. BORE AND JACK METHOD

A. GENERAL

The CONTRACTOR shall bore and jack steel casing pipe where called for on the Drawings. Boring or jacking under state and federal interstate highways, under railroads, and all locations called out on the Drawings shall be accomplished from pits located per the boring permits. The bore must be at grade with an alignment tolerance of +/- 3 inches and a grade tolerance of +/- 2 inches.

B. DAMAGED PAVEMENT

Any cracking or damage caused by the bore and jack operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER, the ENGINEER, or the property owner.

55.06. BORE AND JACK CASING PIPE ON GRADE

A. MATERIAL

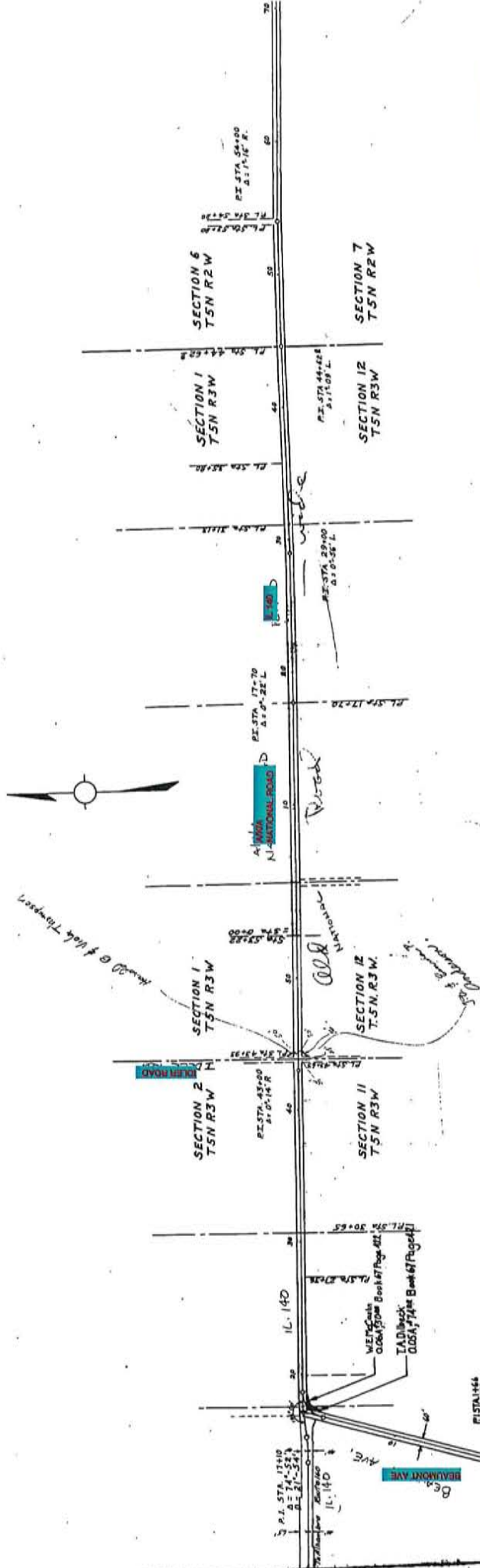
Casing pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03, 55.04, and 55.06 above. The payment shall be per lineal foot per the bid schedule "Bore and Jack Casing Pipe On-Grade" for the material, diameter, and class as called out on the drawings. Payment will only be made for bores meeting tolerances listing in section 55.06. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

INFORMATION ONLY

Route 11 Section 0
 Bond County
 Sta 0+00 to Sta 70+00
 Scale 1"=400'



Lehmann, Paula M

From: Roeckenhaus, Jason R
Sent: Monday, March 27, 2017 1:20 PM
To: Lehmann, Paula M
Subject: RE: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

No issues other than want no risers, boxes, etc. in ditch. Please place utility as far as possible near r.o.w. line.

From: Lehmann, Paula M
Sent: Friday, March 24, 2017 1:59 PM
To: Roeckenhaus, Jason R
Subject: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

Please, investigate the attached utility permit applications; and, return with any recommendations. If applications cannot be investigated within 2 weeks, please advise.

Ms. Paula Lehmann
Permits and Agreements Technician
Division of Highways/District 8
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234-6198
Telephone (618) 346-3170
Fax (618) 346-3162
paula.lehmann@illinois.gov

Please consider the environment before printing this e-mail

PRIVILEGED & CONFIDENTIALITY NOTICE: This email transmission (and /or the documents accompanying such) may contain legally privileged/confidential information. Such information is intended only for the use of the original individual or entity above. If you are not the named or intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of such information is strictly prohibited. If you have received this transmission in error, please immediately notify the sender to arrange for the secure return of the document.

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.



Illinois Department of Transportation

Memorandum

To: District Bureau of Operations - Jim Wessel
From: Project Support - Paula Lehmann
Subject: INVESTIGATION OF UTILITY PERMIT APPLICATION
Date: 3/24/2017

PERMIT NO.: 8- 30428
APPLICANT: City of Greenville
ROUTE: SBI 11
MARKED ROUTE: IL 140
SECTION: Q
STATION: 19+25± to 31+25±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main

Please investigate the attached utility permit application; and, return with any recommendations.

Note below any special requirements you consider necessary in the permit. If application cannot be investigated within two weeks, please advise.

REMARKS:

No KNOWN IADOT ELECTRICAL FACILITIES HERE

D. WANNER 3-27-17

Will San. Sewer be bored under entrances or open cut?

PMS 3-28-17

Attachments

Intentionally Blank



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

3/29/2017

PERMIT No. 8- 30430

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Attention: Mr. Kenny Woelfel

Dear Mr. Woelfel:

Attached are two approved copies of the above permit covering the construction and maintenance as described below:

NATURE OF IMPROVEMENT: Install Sanitary Sewer Main Crossing

ROUTE: SBI 11

SECTION: Q

STATION: 17+60±

COUNTY: Bond

Please notify Ms. Paula Lehmann at (618)346-3170 at this office at least 72 hours before this work is to be performed. Also, inform us when the work has been completed, so that a final inspection can be made.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

A handwritten signature in blue ink, appearing to be 'J. Keirn'.

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

PML:jcp/30430permitletter
Attachments

cc: District Bureau of Operations - Jason Roeckenhaus



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

PERMIT No. 8-30430
ROUTE: SBI 11
MARKED ROUTE: IL 140
SECTION: Q
STATION: 17+60±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main Crossing

3/29/2017

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Dear Mr. Kenny Woelfel:

This permit must be completed within **180 days** unless a time extension is given. When the work is completed and the right of way is restored, please sign this letter as indicated below and return it to this office or email it to DOT.D8UtilityPermits@illinois.gov. Please include the permit number and county in the subject line of the email.

If you have any questions, please contact Paula Lehmann at (618) 346-3170.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

Completed this _____ day of _____, 20____.

Signed _____



Illinois Department of Transportation

Utility Permit

Public Improvement ☐ Yes ☐ No
 IDOT Permit No. 8-30430
 Utility Reference No. _____

I (We) City of Greenville , 404 South 3rd St.
 Name of Applicant Mailing Address
Greenville , IL 62246 , hereinafter termed the Permittee.
 City State & Zip

request permission and authority to occupy, and to do certain work herein described on, the right-of-way of the State highway
 known as SBI Route 11 (IL Route 140) , Section Q ,
 from 17+60 to _____ in Bond County.
 The work is described in detail below and/or on the attached sketch or plans.

As indicated on the attached plans the City proposes to Bore and Jack 60 lineal feet of 24-inch diameter steelcasing under highway 140 near sta.17+60. The proposed sanitary sewer pipe is 12-inch restrained joint PVC.

NO PAVEMENT OR DRAINAGE TO BE DISTURBED.

This permit covers the operation and presence of specified equipment, material or facility on the right-of-way that may be related to the authorized work. A copy of this permit must be present when crews or equipment occupy highway right-of way. Failure to comply may result in the cessation of all construction.

This permit is subject to conditions and restrictions of Part 530 of Title 92 of the Illinois Administrative Code, Accommodation of Utilities on Right-of-Way of the Illinois State Highway System. The removal, relocation or modification of facilities permitted to occupy the right-of-way is governed by Section 9-113 of the Illinois Highway Code, as amended by Public Act 92-0470. The Permittee agrees to comply with the requirements of these laws and with all terms and conditions established by this permit. This permit is subject to revocation by the Department on violation of the terms and conditions governing its use.

[Signature] 3/13/17
 Signature of Agent for Permittee Date

City of Greenville
 Name of Permittee (Print or Type)

404 South 3rd St.
 Mailing Address

Greenville IL 62246
 City State Zip

The work authorized by this permit shall be completed by _____ or within 180 days after the date of approval by the Department, otherwise the permit will be considered null and void.

Public Improvement Projects only: The anticipated letting date is _____

This permit allowing occupancy and work on state right-of-way is approved. The Utility Coordination Council established by the Department in the area covered by this permit is District 8 Collinsville UCC

[Signature] MARCH 29, 2017
 Department of Transportation Date

This permit is subject to the conditions and restrictions established in accordance with the Illinois Highway Code and Part 530 of Title 92 of the Illinois Administrative Code including but not limited to the following:

- (1) The applicant represents all parties in interest and shall furnish material, do all work, pay all costs and shall in a reasonable length of time restore the damaged portions of the highway to a condition similar or equal to that existing before the commencement of the described work, including any landscape restoration necessary. (See Section 530.250 of Title 92).
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- (3) The applicant shall at all times conduct the work in such a manner as to minimize hazards to vehicular and pedestrian traffic. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by the applicant. (See Section 530.240 of Title 92).
- (4) The applicant must ascertain the presence of Highway Authority Agreements established in accordance with 35 Ill. Admin. Code Section 742.1020 in the path of its proposed installation and take precautions to protect its workers, human health and the environment in those areas. (See Section 530.240 of Title 92). Where contamination is encountered through excavation in the ROW, it should be managed offsite and IDOT's generator number for the appropriate county may be used.
- (5) The applicant shall not trim, cut or in any way disturb any trees or shrubbery along the highway without the approval of the Regional Engineer or his duly authorized representative. (See Section 530.800 of Title 92).
- (6) The facilities authorized to occupy the right-of-way by this permit are subject to removal, relocation or modification by the permittee at no expense to the State on notice given by the Department in accordance with Section 9-113 of the Illinois Highway Code, as amended. Participation by the permittee in the UTILITY Coordination Council identified on page one of this permit is required as a condition of this permit. Permittee shall cooperate with the Department with the scheduling of any removal, relocation or modification deemed necessary for highway or highway safety purposes, and, if Utility Coordination Council participation is required by this permit, with the activities of the council identified on the first page of this permit. (See Section 9-113 of the Illinois Highway Code.) Use of and compliance with current IDOT Traffic Control Standards will be required.
- (7) If the applicant and the District cannot agree either on whether the permit should be issued or on what conditions would be appropriate, the applicant may, within 30 days of the issuance of written notice of the District's position, appeal the District's determination to the Chief of the Department's Central Bureau of Operations. (See Section 530.900 of Title 92).
- (8) The permittee agrees to fully comply with the following legal obligations in advance of entering and while upon any Right-of-way within the Illinois State Highway System.
 - a) Only a permit issued by the Department under this Part will satisfy the "written consent" requirement of Section 9-113 of the Illinois Highway Code (the Code).
 - b) A permit from the Department grants a license only to undertake certain activities in accordance with this Part on a State right-of-way, and does not create a property right or grant authority to the permittee to impinge on the rights of others who may have an interest in the right-of-way. Such others might include an owner of an underlying fee simple interest if the right-of-way is owned as an easement or dedication of right of way, an owner of an easement, or another permittee.
 - c) It shall be the responsibility of the permittee to ascertain the presence and location of existing above-ground or underground facilities on the highway right-of-way to be occupied by their proposed facilities. The Department will make its permit records available to a permittee for the purpose of identifying possible facilities. When notified of an excavation or when requested by the Department, a permittee shall locate, physically mark, and indicate the depth of its underground facilities within 48 hours excluding weekends and holidays.
 - d) The permittee shall avoid conflicts with any existing underground or above-ground facilities on or near the highway right-of-way. Both the Department and J.U.L.I.E. are to be contacted for assistance during the application process.
 - e) The permittee shall comply with all other applicable laws relating to the placement of utility lines.
 - f) The issuance of a utility permit by the Department does not excuse the permittee from complying with any existing statutes, local regulations or requirements of other Department (e.g., oversize and overweight vehicles) or the requirements of other State agencies including, but not limited to, the following:

Illinois Commerce Commission, Illinois Department of Agriculture
Illinois Department of Natural Resources, Illinois Department of Mines and Minerals
Illinois Environmental Protection Agency, Illinois Historic Preservation Agency
 - g) Rights of abutting and underlying property owners are protected by common law and Sections 9-113 and 9-127 of the Code. The permittee will address these rights prior to initiating activities on State right-of-way. The Department will not be a party in any negotiations between the utility and abutting property owners.
 - h) In no case shall the permit give or be construed to give an entity any easement, leasehold or other property interest of any kind in, upon, under, above or along the State highway right-of-way.
 - i) Each person responsible for a utility, in place on the effective date of this Part, on a State highway right-of-way shall notify the Department in writing, if that facility does not comply with this Part. The Department shall treat such a notice as a request for a variance under Section 530.130. Until informed that a variance will not be granted, a person responsible for a pre-existing utility will not be in violation of this Part. The failure to provide such notice constitutes a violation of this Part and of the utility accommodation permit (if any) and would justify the imposition of the sanctions set forth in Section 530.810.

Work to be coordinated with Department Representatives:

Paula Lehmann

Phone 618 346-3170

Phone ()

Utility Contact Person: Bill Grider

Phone (618) 435-7380

Work to be done by: Heneghan & Associates-Seth Elliott

(618) 498-6418

Contractor: TBD

Daytime Phone: ()

Emergency Phone: ()

Traffic control operation:

Number of lane closures:

Time of closures:

DISTRICT 8 UTILITY PERMIT SHEET
APPLICABLE TO
PERMIT NO. 8-30430

Attached is a copy of TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES HIGHWAY CONSTRUCTION AND MAINTENANCE Standard No.(s) 701006 & 701001. These Standards are being attached to aid you in selecting the correct Application of Traffic Control to meet the conditions of your construction and does not relieve you of your responsibility of having the correct Traffic Control Devices if the above Standards do not fit your situation. If you have any questions concerning Traffic Control, please contact IDOT's Traffic Control Technician, Phone No. 618-346-3287, or the Department Representative.

The STATE OF ILLINOIS, DIVISION OF HIGHWAYS, shall in no way be held liable for any accidental breakage or damage to any installations that are installed within the State's right-of-way due to any maintenance work or operations of the DIVISION.

The applicant will be responsible for determining location of and protecting all State-owned facilities including buried facilities (such as Culverts, Storm Sewer Drainage, Traffic Signal Conduits, Lighting Conduits) and will be responsible for the cost of repair or replacement of any such facilities damaged as a result of the work covered herein.

Clean-up of the State's right-of-way shall immediately follow construction operations as the job progresses; and, shall not be left until all construction is completed. Maintenance of trenches, filling of settlement, cleaning out eroded dirt from highway ditches and drainage structures shall be a continuous operation. Upon completion of the work covered by this permit, final grading, reseeding, resodding, or any other requirements to restore the right-of-way to a condition equivalent to that which existed prior to the commencement of work shall be completed.

The sanitary sewer main installation under conventional highways shall be installed by means of boring at a minimum depth of 36" below the elevation of the bottom of roadway pavement and/or flow lines of ditches. The minimum length of bore shall extend a distance of 10' beyond the outer edges of the highway pavement or as otherwise specified by IDOT's Utility Permit Technician.

The sanitary sewer main installation shall maintain a minimum depth of 36".

Work shall be carried on in such a manner that traffic shall have full and unobstructed use of the pavement since actual construction work does not involve work in the traffic lanes.

Immediately following the described work, all excavation within the limits of the highway right-of-way shall be completely backfilled. The backfill shall be placed in layers of not over 6" each layer to be firmly tamped into place.

The Department is not a member of JULIE and does not locate its own facilities (such as underground conduit and/or cable for traffic signals or highway lighting). The applicant, at his/her own expense, must obtain the services of a qualified electrical contractor to locate such state-owned facilities.

Underground utility crossings without encasement will preclude future maintenance or repair in the area under the roadway and/or between ditch lines or toes of slopes.

Longitudinal utilities shall be located as near the right-of-way line as practicable and not more than (8) feet from and parallel to the right-of-way line.

The issuance of this utility permit by the Department does not excuse the permittee from obtaining the necessary approvals from the Corps of Engineers, Division of Waterway, Department of Public Health, and any other property owner, municipality, or agency that may be involved or have concerns with this procedure.

It is the applicants responsibility to keep all vegetation cut to a reasonable height around all of their above ground facilities within State right-of-way.

All exposed facilities, such as pedestals, manholes, end sections, monitoring wells, valves and/or meters, within State right-of-way should be clearly marked to avoid conflicts for the State's Maintenance work.

All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday.



HENEGHAN AND ASSOCIATES, P.C.

CIVIL ENGINEERS • LAND SURVEYORS

WWW.HAENGR.COM

Since 1986

March 14, 2017

Illinois Department of Transportation
Region 5 – District 8
Attn: Paula Lehmann
1102 Eastport Plaza Drive
Collinsville, Illinois 62234-6198

Re: Rogier and Linder Sanitary Sewer Extension
City of Greenville
Bond County, Illinois
H&A File 40027-500

Dear Ms. Lehmann:

The following is a request on behalf of the City of Greenville, IL (404 South 3rd Street, Greenville, IL 62246) to Bore and Jack a 24" steel casing with a 12" PVC gravity sewer main beneath Illinois Route 140 in one location, as indicated on the attached plan sheets and maps (plat book sheet). The proposed crossing will be at approximate highway sta. 17+60. All trench backfill will be per the Standard Specifications Water and Sewer Construction in Illinois.

The requested boring location as follows:

Bore Chart

| Bore No. | IDOT Roadway | Plan Sheet No. | Approx. Roadway Sta. | Steel Casing Dia. (in) | Sewer Main Dia.(in.) | Bore Length | Township | Section |
|----------|--------------|----------------|----------------------|------------------------|----------------------|-------------|-------------|---------|
| 1 | IL Rt. 140 | 5-8 | 17+60 | 24 | 12 | 60 | T.5N.-R.3W. | 12 |

See the enclosed location map, plan sheets, and page(s) of specifications for more details regarding this permit application. If you have any questions or require additional documentation, please call Kenny Woelfel at 618-498-6418 or e-mail kewoelfel@heneghanassoc.com.

Sincerely,
HENEGHAN AND ASSOCIATES, P.C.

Kenny Woelfel, CESSWI
Engineering Technician

Encl.

c: HA File 40027-500
City of Greenville

□ 838 East McCord
Centralia, IL 62801
(P) 618-533-6525
(F) 618-533-6652

□ 310A Vision Drive
Columbia, IL 62236
(P) 618-281-8133
(F) 618-281-8290

□ 5213D Mae Drive
Godfrey, IL 62035
(P) 618-466-8076
(F) 618-466-8078

□ 1004 State Highway 16
Jerseyville, IL 62052
(P) 618-498-6418
(F) 618-498-6410

"DEDICATING OUR SERVICES TO STRENGTHEN CLIENT TRUST"

55.01. SCOPE OF WORK

The CONTRACTOR shall furnish all equipment, machinery, labor and materials necessary to perform all operations in connection with the conventional boring and pulling or directional boring of sewer mains of the required diameter and type of material at locations that may be designated at time of construction. **Gravity pipe bores must be at grade with little or no tolerance, see below.**

The CONTRACTOR is responsible for any charges by IDOT and others during the course of the work and shall include such costs in their bid price.

Unless otherwise noted in these specifications, trenchless construction shall abide by Section 23 of the Standard Water and Sewer Specs.

55.02. CONSTRUCTION DETAILS

The alignment and elevation of the forward end of the boring shall be checked and if it does not meet the requirements of the permit, the auger will be pulled and a new boring made at no additional cost to the OWNER.

The CONTRACTOR shall fill over excavation of bore and recovery pits at entrance and exit of sewer main through bore hole with compacted sand or CA-6 to the bottom of the sewer main giving a sound foundation for the sewer main preventing the sewer main from shearing as the backfill settles. Payment for the sand or CA-6 shall be considered incidental to the contract price for bores.

Any cracking or damage caused by the boring operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER.

55.03. MINIMUM DISTANCE FROM PAVEMENT

This section shows the maximum distance beyond road surfaces the bore payment will extend without approval of the ENGINEER.

| | |
|-------------------|---------|
| State Highways | 20 feet |
| County Highways | 20 feet |
| Township Roadways | 15 feet |
| Driveways | 10 feet |

55.04. STEEL CASING MINIMUM SPECIFICATIONS

Casing pipe used for sewer mains shall be ASTM A139 Grade B, welded pipe. The minimum wall thickness for casing pipe shall be as follows, unless otherwise noted on the Drawings:

| Pipe Diameter (in.) | Wall Thickness (in.)* |
|---------------------|-----------------------|
| 6 | 0.28 |
| 8 | 0.322 |
| 10 | 0.365 |
| 12 – 48 | 0.375 |

*Note: Railroad crossings require greater wall thickness. The CONTRACTOR shall use the steel casing wall thickness approved by the railroad.

The casing pipe shall be bituminous tar lined inside and coated outside. Where two (2) sections of casing are welded together, a bituminous tar coating shall be applied to the welded joint.

Certain installation practices are necessary to protect the sewer main that is required to go through the casing pipe. These practices are necessary to prevent the pipe from resting on the joints, and provide for retrieval if repairs are necessary in the future. Prior to inserting the sewer main in the casing, casing spacers as specified in Section 10.04.07 and 52.04.09 shall be installed on the full length of pipe.

Restrained-joint PVC pipe shall be used inside of the casing pipe, with expansion couplings at both ends exterior to the casing (see also Section 52 of these Specifications). After installing the carrier pipe, both ends of the casing pipe shall be sealed by a method approved by the ENGINEER.

55.05. BORE AND JACK METHOD

A. GENERAL

The CONTRACTOR shall bore and jack steel casing pipe where called for on the Drawings. Boring or jacking under state and federal interstate highways, under railroads, and all locations called out on the Drawings shall be accomplished from pits located per the boring permits. The bore must be at grade with an alignment tolerance of +/- 3 inches and a grade tolerance of +/- 2 inches.

B. DAMAGED PAVEMENT

Any cracking or damage caused by the bore and jack operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER, the ENGINEER, or the property owner.

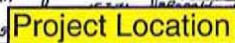
55.06. BORE AND JACK CASING PIPE ON GRADE

A. MATERIAL

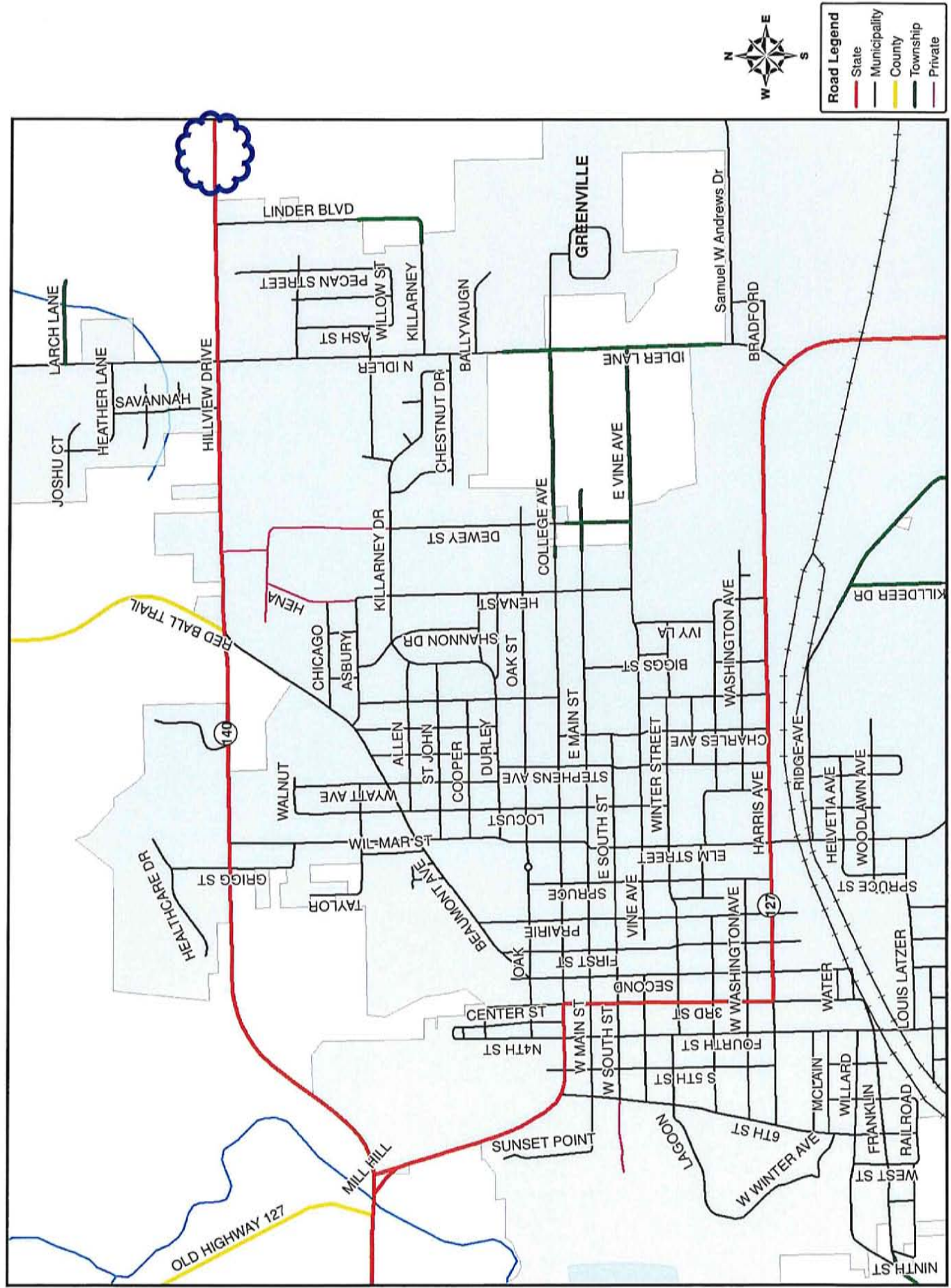
Casing pipe shall be as specified on Drawings.

B. PAYMENT

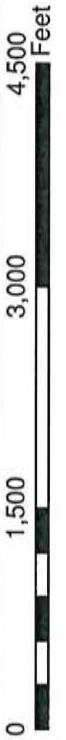
This work shall be completed according to Sections 55.03, 55.04, and 55.06 above. The payment shall be per lineal foot per the bid schedule "Bore and Jack Casing Pipe On-Grade" for the material, diameter, and class as called out on the drawings. Payment will only be made for bores meeting tolerances listing in section 55.06. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.



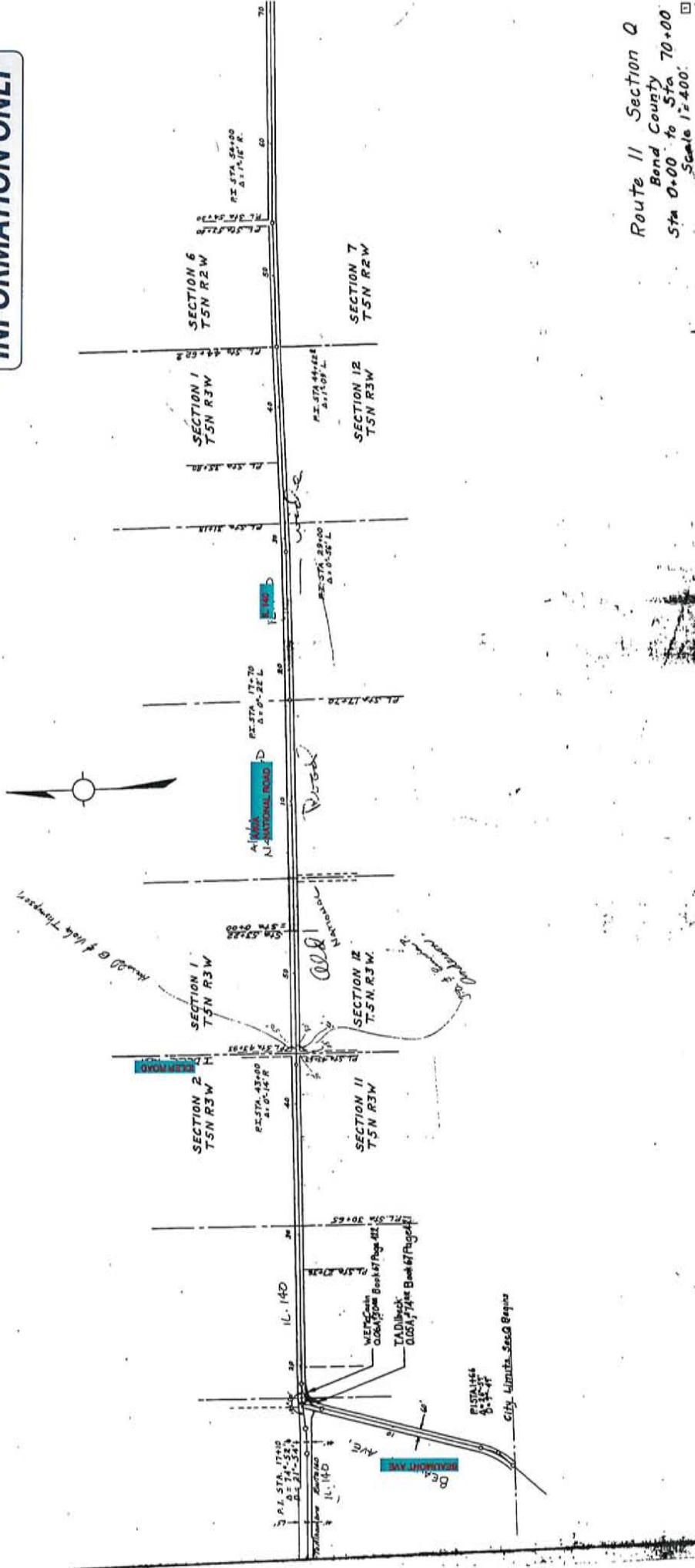
664-1267



BOND COUNTY



INFORMATION ONLY



Route 11 Section Q
 Bond County
 Sta 0+00 to Sta 70+00
 Scale 1"=400'



Illinois Department of Transportation

Memorandum

To: District Bureau of Operations - Jim Wessel
From: Project Support - Paula Lehmann
Subject: INVESTIGATION OF UTILITY PERMIT APPLICATION
Date: 3/24/2017

PERMIT NO.: 8- 30430
APPLICANT: City of Greenville
ROUTE: SBI 11
MARKED ROUTE: IL 140
SECTION: Q
STATION: 17+60±
COUNTY: Bond

NATURE OF WORK: Install Sanitary Sewer Main Crossing

Please investigate the attached utility permit application; and, return with any recommendations.

Note below any special requirements you consider necessary in the permit. If application cannot be investigated within two weeks, please advise.

REMARKS:

NO KNOWN IDOT ELECTRICAL FACILITIES HERE
D. WANNER 3-27-17

Access
No ~~Access~~ Permit Conflicts
Dms
3-28-17

Attachments

Lehmann, Paula M

From: Roeckenhaus, Jason R
Sent: Monday, March 27, 2017 1:20 PM
To: Lehmann, Paula M
Subject: RE: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

No issues other than want no risers, boxes, etc. in ditch. Please place utility as far as possible near r.o.w. line.

From: Lehmann, Paula M
Sent: Friday, March 24, 2017 1:59 PM
To: Roeckenhaus, Jason R
Subject: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

Please, investigate the attached utility permit applications; and, return with any recommendations. If applications cannot be investigated within 2 weeks, please advise.

Ms. Paula Lehmann
Permits and Agreements Technician
Division of Highways/District 8
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234-6198
Telephone (618) 346-3170
Fax (618) 346-3162
paula.lehmann@illinois.gov

Please consider the environment before printing this e-mail

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Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

FILE COPY

3/29/2017

PERMIT No. 8- 30426

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Attention: Mr. Seth Elliott

Dear Mr. Elliott:

Attached are two approved copies of the above permit covering the construction and maintenance as described below:

NATURE OF IMPROVEMENT: Install Forced Sanitary Sewer Main

ROUTE: SBI 127

SECTION: 110

STATION: 140+00± to 148+50±

COUNTY: Bond

Please notify Ms. Paula Lehmann at (618)346-3170 at this office at least 72 hours before this work is to be performed. Also, inform us when the work has been completed, so that a final inspection can be made.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

A handwritten signature in blue ink, appearing to read 'Rebecca L. Tharp'.

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

PML:jcp/30426permitletter
Attachments

cc: District Bureau of Operations - Joe Monroe



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

PERMIT No. 8-30426

ROUTE: SBI 127

MARKED ROUTE: IL 127 (Harris Ave.)

SECTION: 110

STATION: 140+00± to 148+50±

COUNTY: Bond

NATURE OF WORK: Install Forced Sanitary Sewer Main

3/29/2017

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Dear Mr. Seth Elliott:

This permit must be completed within **180 days** unless a time extension is given. When the work is completed and the right of way is restored, please sign this letter as indicated below and return it to this office or email it to DOT.D8UtilityPermits@illinois.gov. Please include the permit number and county in the subject line of the email.

If you have any questions, please contact Paula Lehmann at (618) 346-3170.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

Completed this _____ day of _____, 20____.

Signed _____



Illinois Department of Transportation

Memorandum

To: District Bureau of Operations - Jim Wessel
From: Project Support - Paula Lehmann
Subject: INVESTIGATION OF UTILITY PERMIT APPLICATION
Date: 3/16/2017

PERMIT NO.: 8-30426
APPLICANT: City of Greenville
ROUTE: SBI 127
MARKED ROUTE: IL 127 (Harris Ave.)
SECTION: 110
STATION: 140+00± to 148+50±
COUNTY: Bond

NATURE OF WORK: Install Forced Sanitary Sewer Main

Please investigate the attached utility permit application; and, return with any recommendations.

Note below any special requirements you consider necessary in the permit. If application cannot be investigated within two weeks, please advise.

REMARKS:

NO KNOWN IDOT ELECTRICAL FACILITIES HERE

D. WALKER 3-17-17

An additional Access Permit will be required for the entrance work.

RMS

Attachments

3-17-17



Illinois Department of Transportation

Utility Permit

Public Improvement ☐ Yes ☐ No
 IDOT Permit No. 8-30426
 Utility Reference No. H&A File 40027-500

I (We) City of Greenville, 404 South 3rd St.
Name of Applicant Mailing Address

Greenville, IL 62246, hereinafter termed the Permittee,
City State & Zip

request permission and authority to occupy, and to do certain work herein described on, the right-of-way of the State highway

SBI Route 127
 known as IL Route 127 (Harris Avenue), Section 110,
 from Station 140+00 to Station 148+50 in Bond County.

The work is described in detail below and/or on the attached sketch or plans.

The City of Greenville proposes to install approximately 850 lineal feet of 2-inch diameter forced sanitary sewer main in state ROW along the south side of State Route 127.(see attachments)

This permit covers the operation and presence of specified equipment, material or facility on the right-of-way that may be related to the authorized work. A copy of this permit must be present when crews or equipment occupy highway right-of way. Failure to comply may result in the cessation of all construction.

This permit is subject to conditions and restrictions of Part 530 of Title 92 of the Illinois Administrative Code, Accommodation of Utilities on Right-of-Way of the Illinois State Highway System. The removal, relocation or modification of facilities permitted to occupy the right-of-way is governed by Section 9-113 of the Illinois Highway Code, as amended by Public Act 92-0470. The Permittee agrees to comply with the requirements of these laws and with all terms and conditions established by this permit. This permit is subject to revocation by the Department on violation of the terms and conditions governing its use.

Donna E. Kelly 3/13/17
Signature of Agent for Permittee Date

City of Greenville
Name of Permittee (Print or Type)

404 South 3rd St.
Mailing Address

Greenville IL 62246
City State Zip

The work authorized by this permit shall be completed by _____ or within 180 days after the date of approval by the Department, otherwise the permit will be considered null and void.

Public Improvement Projects only: The anticipated letting date is _____

This permit allowing occupancy and work on state right-of-way is approved. The Utility Coordination Council established by the Department in the area covered by this permit is District 8 Collinsville UCC

Jeffrey L. Klein MARCH 29, 2017
Department of Transportation Date

This permit is subject to the conditions and restrictions established in accordance with the Illinois Highway Code and Part 530 of Title 92 of the Illinois Administrative Code including but not limited to the following:

- (1) The applicant represents all parties in interest and shall furnish material, do all work, pay all costs and shall in a reasonable length of time restore the damaged portions of the highway to a condition similar or equal to that existing before the commencement of the described work, including any landscape restoration necessary. (See Section 530.250 of Title 92).
- (2) The proposed work shall be located and constructed to the satisfaction of the Regional Engineer or his duly authorized representative. No revisions or additions shall be made to the proposed work on the right-of-way without the written permission of the Regional Engineer or his duly authorized representative (See Section 530.200 of Title 92). In certain circumstances the Department may require that the construction plans and/or the as-built documents be sealed by an Illinois Registered Professional Engineer. Typical of such projects would be petroleum or gas pipelines.
- (3) The applicant shall at all times conduct the work in such a manner as to minimize hazards to vehicular and pedestrian traffic. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by the applicant. (See Section 530.240 of Title 92).
- (4) The applicant must ascertain the presence of Highway Authority Agreements established in accordance with 35 Ill. Admin. Code Section 742.1020 in the path of its proposed installation and take precautions to protect its workers, human health and the environment in those areas. (See Section 530.240 of Title 92). Where contamination is encountered through excavation in the ROW, it should be managed offsite and IDOT's generator number for the appropriate county may be used.
- (5) The applicant shall not trim, cut or in any way disturb any trees or shrubbery along the highway without the approval of the Regional Engineer or his duly authorized representative. (See Section 530.600 of Title 92).
- (6) The facilities authorized to occupy the right-of-way by this permit are subject to removal, relocation or modification by the permittee at no expense to the State on notice given by the Department in accordance with Section 9-113 of the Illinois Highway Code, as amended. Participation by the permittee in the UTILITY Coordination Council identified on page one of this permit is required as a condition of this permit. Permittee shall cooperate with the Department with the scheduling of any removal, relocation or modification deemed necessary for highway or highway safety purposes, and, if Utility Coordination Council participation is required by this permit, with the activities of the council identified on the first page of this permit. (See Section 9-113 of the Illinois Highway Code.) Use of and compliance with current IDOT Traffic Control Standards will be required.
- (7) If the applicant and the District cannot agree either on whether the permit should be issued or on what conditions would be appropriate, the applicant may, within 30 days of the issuance of written notice of the District's position, appeal the District's determination to the Chief of the Department's Central Bureau of Operations. (See Section 530.900 of Title 92).
- (8) The permittee agrees to fully comply with the following legal obligations in advance of entering and while upon any Right-of-way within the Illinois State Highway System.
 - a) Only a permit issued by the Department under this Part will satisfy the "written consent" requirement of Section 9-113 of the Illinois Highway Code (the Code).
 - b) A permit from the Department grants a license only to undertake certain activities in accordance with this Part on a State right-of-way, and does not create a property right or grant authority to the permittee to impinge on the rights of others who may have an interest in the right-of-way. Such others might include an owner of an underlying fee simple interest if the right-of-way is owned as an easement or dedication of right of way, an owner of an easement, or another permittee.
 - c) It shall be the responsibility of the permittee to ascertain the presence and location of existing above-ground or underground facilities on the highway right-of-way to be occupied by their proposed facilities. The Department will make its permit records available to a permittee for the purpose of identifying possible facilities. When notified of an excavation or when requested by the Department, a permittee shall locate, physically mark, and indicate the depth of its underground facilities within 48 hours excluding weekends and holidays.
 - d) The permittee shall avoid conflicts with any existing underground or above-ground facilities on or near the highway right-of-way. Both the Department and J.U.L.I.E. are to be contacted for assistance during the application process.
 - e) The permittee shall comply with all other applicable laws relating to the placement of utility lines.
 - f) The issuance of a utility permit by the Department does not excuse the permittee from complying with any existing statutes, local regulations or requirements of other Department (e.g., oversize and overweight vehicles) or the requirements of other State agencies including, but not limited to, the following:
 Illinois Commerce Commission, Illinois Department of Agriculture
 Illinois Department of Natural Resources, Illinois Department of Mines and Minerals
 Illinois Environmental Protection Agency, Illinois Historic Preservation Agency
 - g) Rights of abutting and underlying property owners are protected by common law and Sections 9-113 and 9-127 of the Code. The permittee will address these rights prior to initiating activities on State right-of-way. The Department will not be a party in any negotiations between the utility and abutting property owners.
 - h) In no case shall the permit give or be construed to give an entity any easement, leasehold or other property interest of any kind in, upon, under, above or along the State highway right-of-way.
 - i) Each person responsible for a utility, in place on the effective date of this Part, on a State highway right-of-way shall notify the Department in writing, if that facility does not comply with this Part. The Department shall treat such a notice as a request for a variance under Section 530.130. Until informed that a variance will not be granted, a person responsible for a pre-existing utility will not be in violation of this Part. The failure to provide such notice constitutes a violation of this Part and of the utility accommodation permit (if any) and would justify the imposition of the sanctions set forth in Section 530.810.

Work to be coordinated with Department Representatives:

Paula Lehmann

Phone (618) 346-3170

Phone ()

Utility Contact Person:

Bill Grider

Phone (618) 435-7380

Heneghan & Associates - Seth Elliott

(618) 498-6418

Work to be done by:

Contractor: TBD

Daytime Phone: ()

Emergency Phone: ()

Traffic control operation:

Number of lane closures:

Time of closures:

DISTRICT 8 UTILITY PERMIT SHEET

APPLICABLE TO

PERMIT NO. 8-30426

Attached is a copy of TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES HIGHWAY CONSTRUCTION AND MAINTENANCE Standard No.(s) 701006, & 701001. These Standards are being attached to aid you in selecting the correct Application of Traffic Control to meet the conditions of your construction and does not relieve you of your responsibility of having the correct Traffic Control Devices if the above Standards do not fit your situation. If you have any questions concerning Traffic Control, please contact IDOT's Traffic Control Technician, Phone No. 618-346-3287, or the Department Representative.

The STATE OF ILLINOIS, DIVISION OF HIGHWAYS, shall in no way be held liable for any accidental breakage or damage to any installations that are installed within the State's right-of-way due to any maintenance work or operations of the DIVISION.

The applicant will be responsible for determining location of and protecting all State-owned facilities including buried facilities (such as Culverts, Storm Sewer Drainage, Traffic Signal Conduits, Lighting Conduits) and will be responsible for the cost of repair or replacement of any such facilities damaged as a result of the work covered herein.

Clean-up of the State's right-of-way shall immediately follow construction operations as the job progresses; and, shall not be left until all construction is completed. Maintenance of trenches, filling of settlement, cleaning out eroded dirt from highway ditches and drainage structures shall be a continuous operation. Upon completion of the work covered by this permit, final grading, reseeding, resodding, or any other requirements to restore the right-of-way to a condition equivalent to that which existed prior to the commencement of work shall be completed.

The sanitary sewer installation shall maintain a minimum depth of 36".

Work shall be carried on in such a manner that traffic shall have full and unobstructed use of the pavement since actual construction work does not involve work in the traffic lanes.

Immediately following the described work, all excavation within the limits of the highway right-of-way shall be completely backfilled. The backfill shall be placed in layers of not over 6" each layer to be firmly tamped into place.

The Department is not a member of JULIE and does not locate its own facilities (such as underground conduit and/or cable for traffic signals or highway lighting). The applicant, at his/her own expense, must obtain the services of a qualified electrical contractor to locate such state-owned facilities.

Longitudinal utilities shall be located as near the right-of-way line as practicable and not more than (8) feet from and parallel to the right-of-way line.

The issuance of this utility permit by the Department does not excuse the permittee from obtaining the necessary approvals from the Corps of Engineers, Division of Waterway, Department of Public Health, and any other property owner, municipality, or agency that may be involved or have concerns with this procedure.

It is the applicants responsibility to keep all vegetation cut to a reasonable height around all of their above ground facilities within State right-of-way.

All exposed facilities, such as pedestals, manholes, end sections, monitoring wells, valves and/or meters, within State right-of-way should be clearly marked to avoid conflicts for the State's Maintenance work.

All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday.



HENEGHAN AND ASSOCIATES, P.C.

CIVIL ENGINEERS • LAND SURVEYORS

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Since 1986

March 2, 2017

Illinois Department of Transportation
Utility Permit Section
126 East Ash Street
Springfield, Illinois 62704-4792

Attn: Paula Lehmann

Re: Harris Sanitary Sewer Extension
City of Greenville
Bond County, Illinois
H&A File 40027-500

Dear Paula:

The City of Greenville, IL is requesting a permit to install approximately 850 lineal feet of 2-inch forced main sanitary sewer main in the state R.O.W. along RTE 127 or Harris Ave, in locations as shown on attached plans.

All forced main on state R.O.W. shall be installed in a 12" to 24" trench with a minimum depth of 44" (42" cover) and will be backfilled according to "Standard Specifications for Road and Bridge Construction"

Locations are shown on the attached maps (plat book sheets) and construction drawings. The proposed mains will carry sanitary and will be made of PVC pipe sized as shown on the construction plans. The requested longitudinal locations are as follows:

| State Hwy | Side of Road | Plan Sheet # | Section # | Township | Begin Station | End Station | Pipe Dia. | Approx. Distance (ft) | R.O.W. From Center | Dist. From R.O.W. |
|-----------|--------------|--------------|-----------|-------------|---------------|-------------|-----------|-----------------------|--------------------|-------------------|
| Route 127 | South | 13-2 & 13-3 | 14 | T.5N. R.3W. | 140+00 | 148+50 | 2" | 850 | Varies | Varies |

See the enclosed location maps and aerial sheets for more details regarding the bore permit application. If you have any questions or require additional documentation, please call.

Sincerely,
HENEGHAN AND ASSOCIATES, P.C.

Kenny Woelfel, CESSWI
Engineering Technician

Encl.

c: HA File 40027-500

□ 838 East McCord
Centralia, IL 62801
(P) 618-533-6525
(F) 618-533-6652

□ 310A Vision Drive
Columbia, IL 62236
(P) 618-281-8133
(F) 618-281-8290

□ 5213D Mae Drive
Godfrey, IL 62035
(P) 618-466-8076
(F) 618-466-8078

□ 1004 State Highway 16
Jerseyville, IL 62052
(P) 618-498-6418
(F) 618-498-6410

"DEDICATING OUR SERVICES TO STRENGTHEN CLIENT TRUST"

Lehmann, Paula M

From: Kenneth E. Woelfel <kewoelfel@heneghanassoc.com>
Sent: Tuesday, March 14, 2017 11:10 AM
To: Lehmann, Paula M
Cc: Seth William Elliott
Subject: [External] FW: Greenville Sewer Harris Ave.
Attachments: Signed OPER 1113.pdf

Paula,
Please find the attached signed permit for the project mentioned below. If you need anything else let me know.
Kenny

From: Kenneth E. Woelfel
Sent: Friday, March 03, 2017 9:09 AM
To: 'Lehmann, Paula M' <Paula.Lehmann@illinois.gov>
Cc: Seth Elliott <swelliott@heneghanassoc.com>
Subject: RE: Greenville Sewer Harris Ave.

That's fine.
Thanks for your help.

From: Lehmann, Paula M [<mailto:Paula.Lehmann@illinois.gov>]
Sent: Friday, March 03, 2017 8:31 AM
To: Kenneth E. Woelfel <kewoelfel@heneghanassoc.com>
Subject: RE: Greenville Sewer Harris Ave.

I believe RuAnna Stumpf in our Bureau of Operations will want to review this permit but she's won't be back until Monday.

From: Kenneth E. Woelfel [<mailto:kewoelfel@heneghanassoc.com>]
Sent: Friday, March 03, 2017 8:23 AM
To: Lehmann, Paula M
Cc: Seth William Elliott
Subject: [External] RE: Greenville Sewer Harris Ave.

Thank you for your quick response.
Is that all we need to get the fully executed permit? Are the plans workable for you? We can get that signature to you within days, if that is all.

From: Lehmann, Paula M [<mailto:Paula.Lehmann@illinois.gov>]
Sent: Friday, March 03, 2017 7:49 AM
To: Kenneth E. Woelfel <kewoelfel@heneghanassoc.com>
Subject: RE: Greenville Sewer Harris Ave.

The permit application needs to be signed and dated on the line marked "Signature of Agent for Permittee".

From: Kenneth E. Woelfel [<mailto:kewoelfel@heneghanassoc.com>]
Sent: Thursday, March 02, 2017 4:02 PM
To: Lehmann, Paula M
Cc: Seth William Elliott
Subject: [External] Greenville Sewer Harris Ave.

Hi Paula,
Seth Elliott asked me to send the attachments to you for review.
If things are in order great, if not let me and or Seth know what is lacking.
Thank you for your time and trouble.

Kenny Woelfel

Engineering Technician

Heneghan and Associates, P.C.

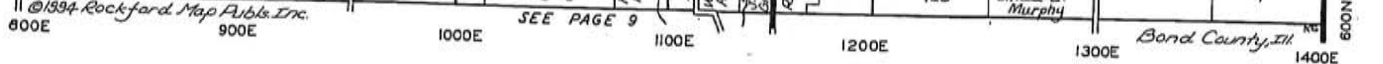
Civil Engineers and Land Surveyors

(P) 618.498.6418

(F) 618.498.6410

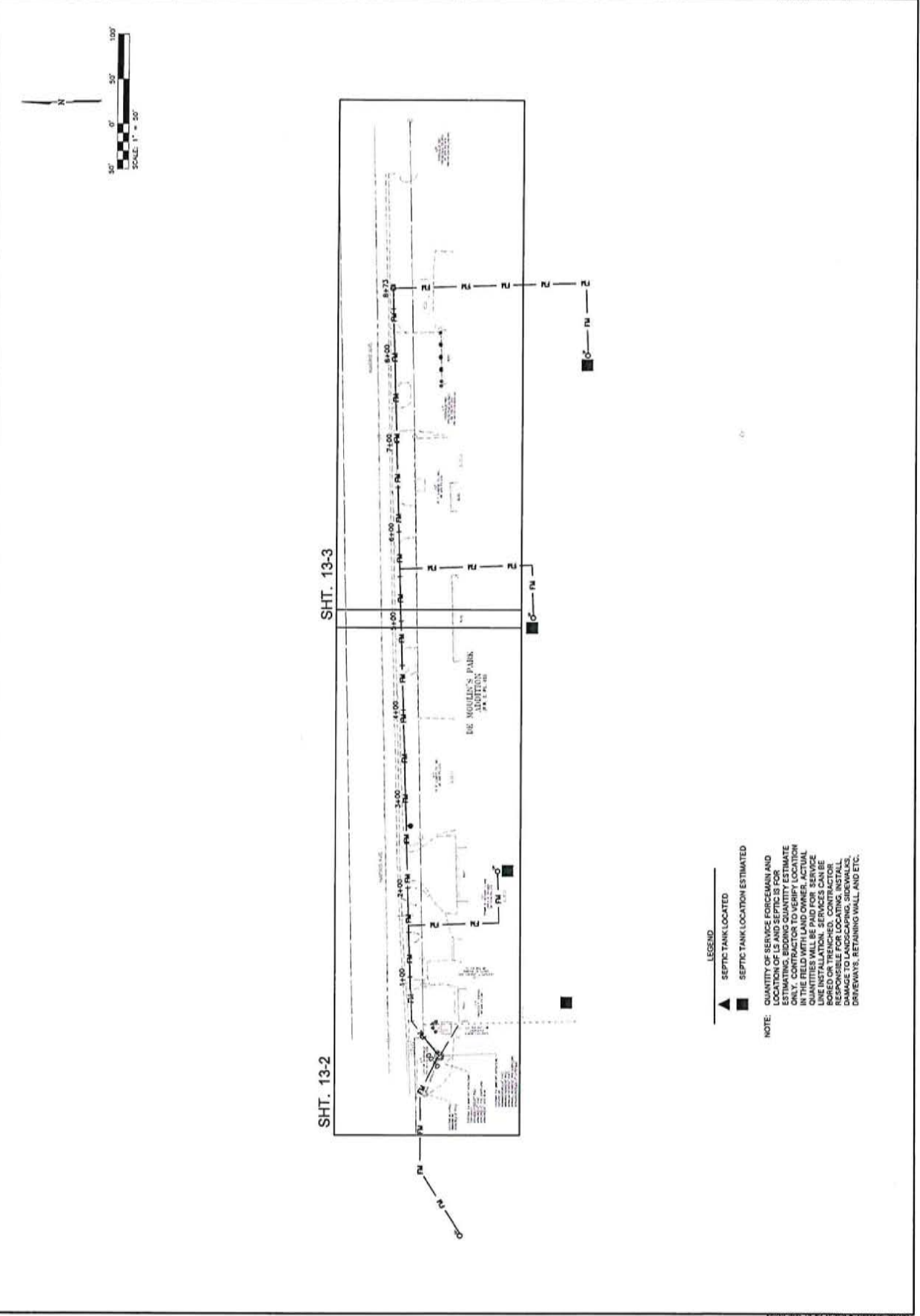
www.haengr.com

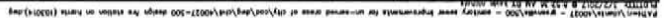
State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.



Greenville

664-1267

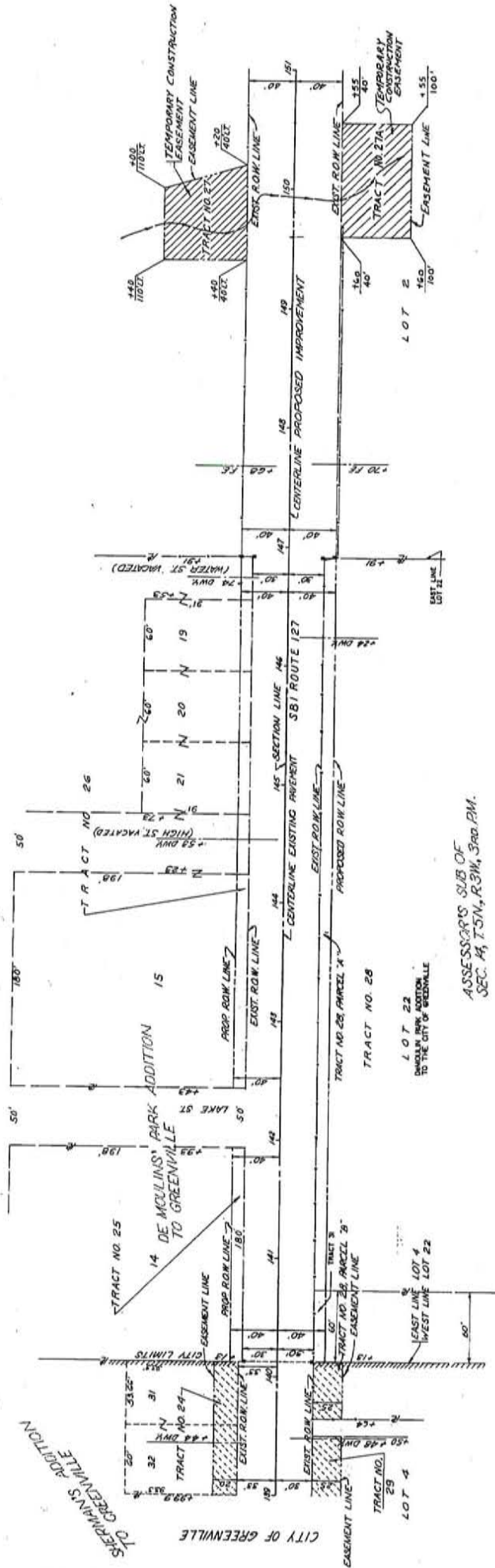




INFORMATION ONLY

SECTION 14, T.5N, R.3W, 3RD PM.

| TRACT NO. | OWNER | EASEMENT ACROSS 80 FT. | NET R.O.W. AREA AC. FT. | CONV. AREA AC. FT. | REMARKS |
|-----------|------------------------|------------------------------|-------------------------------|-----------------------|---------------------------|
| 20 | CITY OF GREENVILLE | 1.2715 | | | TEMPORARY CONVE. EASEMENT |
| 21 | LLOYD-N. THACKER | 2.2482 | | | TEMPORARY CONVE. EASEMENT |
| 22 | MR. & MRS. J. H. BROWN | | 1.0000 | 31.000 | TEMPORARY CONVE. EASEMENT |
| 23 | MR. & MRS. J. H. BROWN | | 1.0000 | 31.000 | TEMPORARY CONVE. EASEMENT |
| 24 | CORNELIA H. DAVIS | 4.8000 | 24.720 | 6.180 | TEMPORARY CONVE. EASEMENT |
| 25 | FRANK BROWN | 5.7500 | 24.720 | 6.180 | TEMPORARY CONVE. EASEMENT |
| 26 | RASLER PLUMBING CO. | 1.225 | 2.400 | 400 | TEMPORARY CONVE. EASEMENT |



ASSESSOR'S SUB OF
SEC. 14, T.5N, R.3W, 3RD PM.

- LEGEND
- NET R.O.W.
 - PERMANENT EASEMENT
 - TEMPORARY EASEMENT
 - EXISTING ROW LINE
 - PROPOSED ROW LINE
 - EASEMENT LINE
 - PROPERTY LINE

STATE OF ILLINOIS
DIVISION OF HIGHWAYS
RIGHT OF WAY STRIP MAP
S.B.L. RTE. 127 SECTION 110-21W/8S
STA. 139+00 TO STA. 151+00
BOND COUNTY
SCALE: 1"=40'

SECTION 14, T.5N, R.3W, 3RD PM.

APPROVED: 1-24-64 Robert S. Kraft
DATE DISTRICT ENGINEER



Illinois Department of Transportation

Memorandum

To: District Bureau of Operations - Joe Monroe
From: Project Support - Paula Lehmann
Subject: INVESTIGATION OF UTILITY PERMIT APPLICATION
Date: 3/16/2017

PERMIT NO.: **8- 30426**
APPLICANT: **City of Greenville**
ROUTE: **SBI 127**
MARKED ROUTE: **IL 127 (Harris Ave.)**
SECTION: **110**
STATION: **140+00± to 148+50±**
COUNTY: **Bond**

NATURE OF WORK: **Install Forced Sanitary Sewer Main**

Please investigate the attached utility permit application; and, return with any recommendations.

Note below any special requirements you consider necessary in the permit. If application cannot be investigated within two weeks, please advise.

REMARKS: _____

Attachments

Intentionally Blank



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

3/29/2017

PERMIT No. 8- 30431

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Attention: Mr. Kenny Woelfel

Dear Mr. Woelfel:

Attached are two approved copies of the above permit covering the construction and maintenance as described below:

NATURE OF IMPROVEMENT: Install Sanitary Sewer Main

ROUTE: SBI 127

SECTION: 110

STATION: 941+00± to 950+50±

COUNTY: Bond

Please notify Ms. Paula Lehmann at (618)346-3170 at this office at least 72 hours before this work is to be performed. Also, inform us when the work has been completed, so that a final inspection can be made.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

A handwritten signature in blue ink, appearing to be 'R. Tharp'.

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

PML:jcp/30431permitletter

Attachments

cc: District Bureau of Operations - Jason Roeckenhau



Illinois Department of Transportation

Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

PERMIT No. 8-30431
ROUTE: SBI 127
MARKED ROUTE: IL 127
SECTION: 110
STATION: 941+00± to 950+50±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main

3/29/2017

City of Greenville
Municipal Building
404 S. Third Street
Greenville, IL 62246

Dear Mr. Kenny Woelfel:

This permit must be completed within **180 days** unless a time extension is given. When the work is completed and the right of way is restored, please sign this letter as indicated below and return it to this office or email it to DOT.D8UtilityPermits@illinois.gov. Please include the permit number and county in the subject line of the email.

If you have any questions, please contact Paula Lehmann at (618) 346-3170.

Sincerely,

Jeffrey L. Keirn, PE
Region Five Engineer

Rebecca L. Tharp, P.E., S.E.
Project Support Engineer

Completed this _____ day of _____, 20____.

Signed _____



Illinois Department of Transportation

Utility Permit

Public Improvement ☐ Yes ☐ No
 IDOT Permit No. 8-30431
 Utility Reference No. 40027-500

I (We) City of Greenville, 404 South 3rd St.
 Name of Applicant Mailing Address

Greenville, IL 62246, hereinafter termed the Permittee.
 City State & Zip

request permission and authority to occupy, and to do certain work herein described on, the right-of-way of the State highway

known as SBI Route 127 (IL Route 127), Section 110,
 from 950+50 to 941+00 in Bond County.

The work is described in detail below and/or on the attached sketch or plans.

As indicated on the attached plans the City proposes to install approximately 900 lineal feet of 8-inch and 715 lineal feet of 12-inch PVC sanitary sewer main in state ROW and longitudinal to State Route 127. This work includes one crossing near sta. 947+00 to be accomplished by the Bore and Jack method of installation. The Restrained Joint PVC carrier pipe will be cased at the crossing. The city also proposes to case the sanitary sewer main at a ditch crossing near highway sta. 949+50.

NO PAVEMENT OR DRAINAGE TO BE DISTURBED.

This permit covers the operation and presence of specified equipment, material or facility on the right-of-way that may be related to the authorized work. A copy of this permit must be present when crews or equipment occupy highway right-of-way. Failure to comply may result in the cessation of all construction.

This permit is subject to conditions and restrictions of Part 530 of Title 92 of the Illinois Administrative Code, Accommodation of Utilities on Right-of-Way of the Illinois State Highway System. The removal, relocation or modification of facilities permitted to occupy the right-of-way is governed by Section 9-113 of the Illinois Highway Code, as amended by Public Act 92-0470. The Permittee agrees to comply with the requirements of these laws and with all terms and conditions established by this permit. This permit is subject to revocation by the Department on violation of the terms and conditions governing its use.

[Signature] 3/13/17
 Signature of Agent for Permittee Date

 Name of Permittee (Print or Type)

404 South 3rd St.
 Mailing Address

Greenville IL 62246
 City State Zip

The work authorized by this permit shall be completed by _____ or within 180 days after the date of approval by the Department, otherwise the permit will be considered null and void.

Public Improvement Projects only: The anticipated letting date is _____

This permit allowing occupancy and work on state right-of-way is approved. The Utility Coordination Council established by the Department in the area covered by this permit is District 8 Collinsville UCC

[Signature] MARCH 29, 2017
 Department of Transportation Date

This permit is subject to the conditions and restrictions established in accordance with the Illinois Highway Code and Part 530 of Title 92 of the Illinois Administrative Code including but not limited to the following:

- (1) The applicant represents all parties in interest and shall furnish material, do all work, pay all costs and shall in a reasonable length of time restore the damaged portions of the highway to a condition similar or equal to that existing before the commencement of the described work, including any landscape restoration necessary. (See Section 530.250 of Title 92).
- (2) The proposed work shall be located and constructed to the satisfaction of the Regional Engineer or his duly authorized representative. No revisions or additions shall be made to the proposed work on the right-of-way without the written permission of the Regional Engineer or his duly authorized representative (See Section 530.200 of Title 92). In certain circumstances the Department may require that the construction plans and/or the as-built documents be sealed by an Illinois Registered Professional Engineer. Typical of such projects would be petroleum or gas pipelines.
- (3) The applicant shall at all times conduct the work in such a manner as to minimize hazards to vehicular and pedestrian traffic. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by the applicant. (See Section 530.240 of Title 92).
- (4) The applicant must ascertain the presence of Highway Authority Agreements established in accordance with 35 Ill. Admin. Code Section 742.1020 in the path of its proposed installation and take precautions to protect its workers, human health and the environment in those areas. (See Section 530.240 of Title 92). Where contamination is encountered through excavation in the ROW, it should be managed offsite and IDOT's generator number for the appropriate county may be used.
- (5) The applicant shall not trim, cut or in any way disturb any trees or shrubbery along the highway without the approval of the Regional Engineer or his duly authorized representative. (See Section 530.600 of Title 92).
- (6) The facilities authorized to occupy the right-of-way by this permit are subject to removal, relocation or modification by the permittee at no expense to the State on notice given by the Department in accordance with Section 9-113 of the Illinois Highway Code, as amended. Participation by the permittee in the UTILITY Coordination Council identified on page one of this permit is required as a condition of this permit. Permittee shall cooperate with the Department with the scheduling of any removal, relocation or modification deemed necessary for highway or highway safety purposes, and, if Utility Coordination Council participation is required by this permit, with the activities of the council identified on the first page of this permit. (See Section 9-113 of the Illinois Highway Code.) Use of and compliance with current IDOT Traffic Control Standards will be required.
- (7) If the applicant and the District cannot agree either on whether the permit should be issued or on what conditions would be appropriate, the applicant may, within 30 days of the issuance of written notice of the District's position, appeal the District's determination to the Chief of the Department's Central Bureau of Operations. (See Section 530.900 of Title 92).
- (8) The permittee agrees to fully comply with the following legal obligations in advance of entering and while upon any Right-of-way within the Illinois State Highway System.
 - a) Only a permit issued by the Department under this Part will satisfy the "written consent" requirement of Section 9-113 of the Illinois Highway Code (the Code).
 - b) A permit from the Department grants a license only to undertake certain activities in accordance with this Part on a State right-of-way, and does not create a property right or grant authority to the permittee to impinge on the rights of others who may have an interest in the right-of-way. Such others might include an owner of an underlying fee simple interest if the right-of-way is owned as an easement or dedication of right of way, an owner of an easement, or another permittee.
 - c) It shall be the responsibility of the permittee to ascertain the presence and location of existing above-ground or underground facilities on the highway right-of-way to be occupied by their proposed facilities. The Department will make its permit records available to a permittee for the purpose of identifying possible facilities. When notified of an excavation or when requested by the Department, a permittee shall locate, physically mark, and indicate the depth of its underground facilities within 48 hours excluding weekends and holidays.
 - d) The permittee shall avoid conflicts with any existing underground or above-ground facilities on or near the highway right-of-way. Both the Department and J.U.L.I.E. are to be contacted for assistance during the application process.
 - e) The permittee shall comply with all other applicable laws relating to the placement of utility lines.
 - f) The issuance of a utility permit by the Department does not excuse the permittee from complying with any existing statutes, local regulations or requirements of other Department (e.g., oversize and overweight vehicles) or the requirements of other State agencies including, but not limited to, the following:

Illinois Commerce Commission, Illinois Department of Agriculture
Illinois Department of Natural Resources, Illinois Department of Mines and Minerals
Illinois Environmental Protection Agency, Illinois Historic Preservation Agency
 - g) Rights of abutting and underlying property owners are protected by common law and Sections 9-113 and 9-127 of the Code. The permittee will address these rights prior to initiating activities on State right-of-way. The Department will not be a party in any negotiations between the utility and abutting property owners.
 - h) In no case shall the permit give or be construed to give an entity any easement, leasehold or other property interest of any kind in, upon, under, above or along the State highway right-of-way.
 - i) Each person responsible for a utility, in place on the effective date of this Part, on a State highway right-of-way shall notify the Department in writing, if that facility does not comply with this Part. The Department shall treat such a notice as a request for a variance under Section 530.130. Until informed that a variance will not be granted, a person responsible for a pre-existing utility will not be in violation of this Part. The failure to provide such notice constitutes a violation of this Part and of the utility accommodation permit (if any) and would justify the imposition of the sanctions set forth in Section 530.810.

Work to be coordinated with Department Representatives:

Paula Lehmann

Phone 618 346-3170

Phone ()

Utility Contact Person: Bill Grider

Phone (618) 435-7380

Heneghan & Associates-Seth Elliott

(618) 498-6418

Work to be done by:

Contractor: TBD

Daytime Phone: ()

Emergency Phone: ()

Traffic control operation:

Number of lane closures:

Time of closures:

DISTRICT 8 UTILITY PERMIT SHEET
APPLICABLE TO
PERMIT NO. 8-30431

Attached is a copy of TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES HIGHWAY CONSTRUCTION AND MAINTENANCE Standard No.(s) 701006 & 701001. These Standards are being attached to aid you in selecting the correct Application of Traffic Control to meet the conditions of your construction and does not relieve you of your responsibility of having the correct Traffic Control Devices if the above Standards do not fit your situation. If you have any questions concerning Traffic Control, please contact IDOT's Traffic Control Technician, Phone No. 618-346-3287, or the Department Representative.

The STATE OF ILLINOIS, DIVISION OF HIGHWAYS, shall in no way be held liable for any accidental breakage or damage to any installations that are installed within the State's right-of-way due to any maintenance work or operations of the DIVISION.

The applicant will be responsible for determining location of and protecting all State-owned facilities including buried facilities (such as Culverts, Storm Sewer Drainage, Traffic Signal Conduits, Lighting Conduits) and will be responsible for the cost of repair or replacement of any such facilities damaged as a result of the work covered herein.

Clean-up of the State's right-of-way shall immediately follow construction operations as the job progresses; and, shall not be left until all construction is completed. Maintenance of trenches, filling of settlement, cleaning out eroded dirt from highway ditches and drainage structures shall be a continuous operation. Upon completion of the work covered by this permit, final grading, reseeding, resodding, or any other requirements to restore the right-of-way to a condition equivalent to that which existed prior to the commencement of work shall be completed.

The sanitary sewer main installation under conventional highways shall be installed by means of boring at a minimum depth of 36" below the elevation of the bottom of roadway pavement and/or flow lines of ditches. The minimum length of bore shall extend a distance of 10' beyond the outer edges of the highway pavement or as otherwise specified by IDOT's Utility Permit Technician.

The sanitary sewer main installation shall maintain a minimum depth of 36".

Work shall be carried on in such a manner that traffic shall have full and unobstructed use of the pavement since actual construction work does not involve work in the traffic lanes.

Immediately following the described work, all excavation within the limits of the highway right-of-way shall be completely backfilled. The backfill shall be placed in layers of not over 6" each layer to be firmly tamped into place.

The Department is not a member of JULIE and does not locate its own facilities (such as underground conduit and/or cable for traffic signals or highway lighting). The applicant, at his/her own expense, must obtain the services of a qualified electrical contractor to locate such state-owned facilities.

Underground utility crossings without encasement will preclude future maintenance or repair in the area under the roadway and/or between ditch lines or toes of slopes.

Longitudinal utilities shall be located as near the right-of-way line as practicable and not more than (8) feet from and parallel to the right-of-way line.

The issuance of this utility permit by the Department does not excuse the permittee from obtaining the necessary approvals from the Corps of Engineers, Division of Waterway, Department of Public Health, and any other property owner, municipality, or agency that may be involved or have concerns with this procedure.

It is the applicants responsibility to keep all vegetation cut to a reasonable height around all of their above ground facilities within State right-of-way.

All exposed facilities, such as pedestals, manholes, end sections, monitoring wells, valves and/or meters, within State right-of-way should be clearly marked to avoid conflicts for the State's Maintenance work.

All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday.



HENEGHAN AND ASSOCIATES, P.C.

CIVIL ENGINEERS • LAND SURVEYORS

WWW.HAENGR.COM

Since 1986

March 14, 2017

Illinois Department of Transportation
Region 5 – District 8
Attn: Paula Lehmann
1102 Eastport Plaza Drive
Collinsville, Illinois 62234-6198

Re: Route 127 Sanitary Sewer Extension
City of Greenville
Bond County, Illinois
H&A File 40027-500

Dear Ms. Lehmann:

The following is a request on behalf of the City of Greenville, IL (404 South 3rd Street, Greenville, IL 62246) to Bore and Jack a 24" steel casing with a 12" PVC gravity sewer main beneath Illinois Route 127 in one location. The City also proposes to install 8-inch and 12-inch gravity sewer main longitudinally as indicated on the attached plan sheets and maps (plat book sheet). The proposed crossing will be at approximate highway sta. 947+00. The longitudinal installation from approximate highway sta. 950+50 to 947+00 on the west side of route 127 and from 947+00 to approximately 941+00 on the east side of State Route 127. All trench backfill will be per the Standard Specifications for Water and Sewer Construction in Illinois.

The requested boring location as follows:

Bore Chart

| Bore No. | IDOT Roadway | Plan Sheet No. | Approx. Roadway Sta. | Steel Casing Dia. (in) | Sewer Main Dia.(in.) | Bore Length | Township | Section |
|----------|--------------|----------------|----------------------|------------------------|----------------------|-------------|-------------|---------|
| 1 | IL Rt. 127 | 6-3 | 947+00 | 24 | 12 | 87 | T.5N.-R.3W. | 24 |

The requested longitudinal location is as follows:

| State Hwy | Side of Road | Plan Sheet # | Section # | Township | Begin Station | End Station | Pipe Dia. | Approx. Distance (ft) | R.O.W. From Center | Dist. From R.O.W. |
|-----------|--------------|--------------|-----------|-------------|---------------|-------------|-----------|-----------------------|--------------------|-------------------|
| Route 127 | West | 6-2 & 6-3 | 24 | T.5N. R.3W. | 950+50 | 947+00 | 12" | 350 | Varies | Varies |
| Route 127 | East | 6-3 & 6-4 | 24 | T.5N. R.3W. | 947+00 | 941+00 | 8" | 600 | Varies | Varies |

□ 838 East McCord
Centralia, IL 62801
(P) 618-533-6525
(F) 618-533-6652

□ 310A Vision Drive
Columbia, IL 62236
(P) 618-281-8133
(F) 618-281-8290

□ 5213D Mae Drive
Godfrey, IL 62035
(P) 618-466-8076
(F) 618-466-8078

✕ 1004 State Highway 16
Jerseyville, IL 62052
(P) 618-498-6418
(F) 618-498-6410

"DEDICATING OUR SERVICES TO STRENGTHEN CLIENT TRUST"

See the enclosed location map, plan sheets, and page(s) of specifications for more details regarding this permit application. If you have any questions or require additional documentation, please call Kenny Woelfel at 618-498-6418 or e-mail kewoelfel@heneghanassoc.com.

Sincerely,
HENEGHAN AND ASSOCIATES, P.C.

A handwritten signature in blue ink, appearing to read "Kenny Woelfel", is written over the printed name.

Kenny Woelfel, CESSWI
Engineering Technician

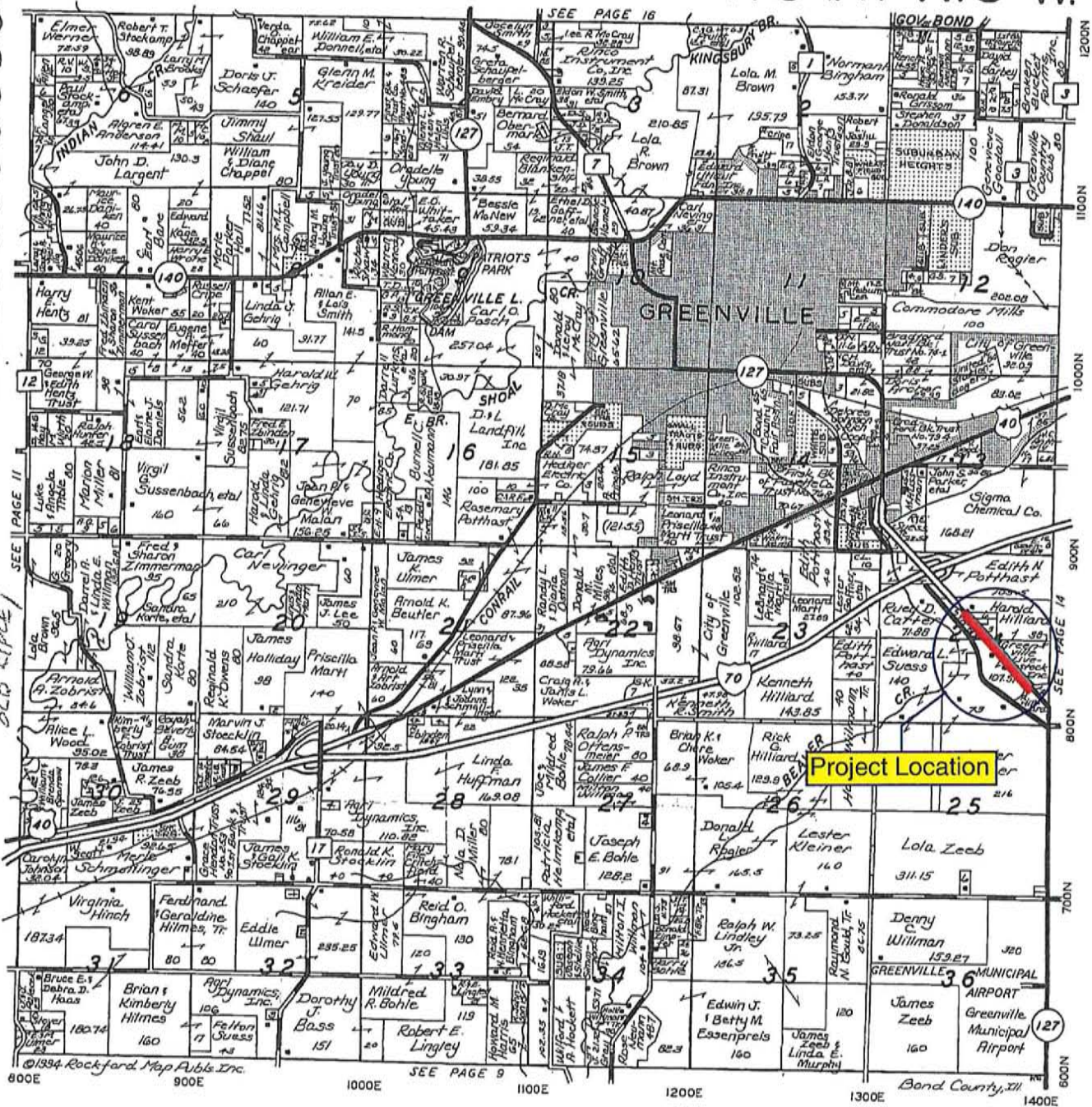
Encl.

c: HA File 40027-500
City of Greenville

CENTRAL

T.5 N-R.3 W.

13



Ag & Business Accounting, Ltd.

COMPUTERIZED LASER PRINTED
INCOME TAX & ACCOUNTING



Farms • Individual • Business

Notary Public

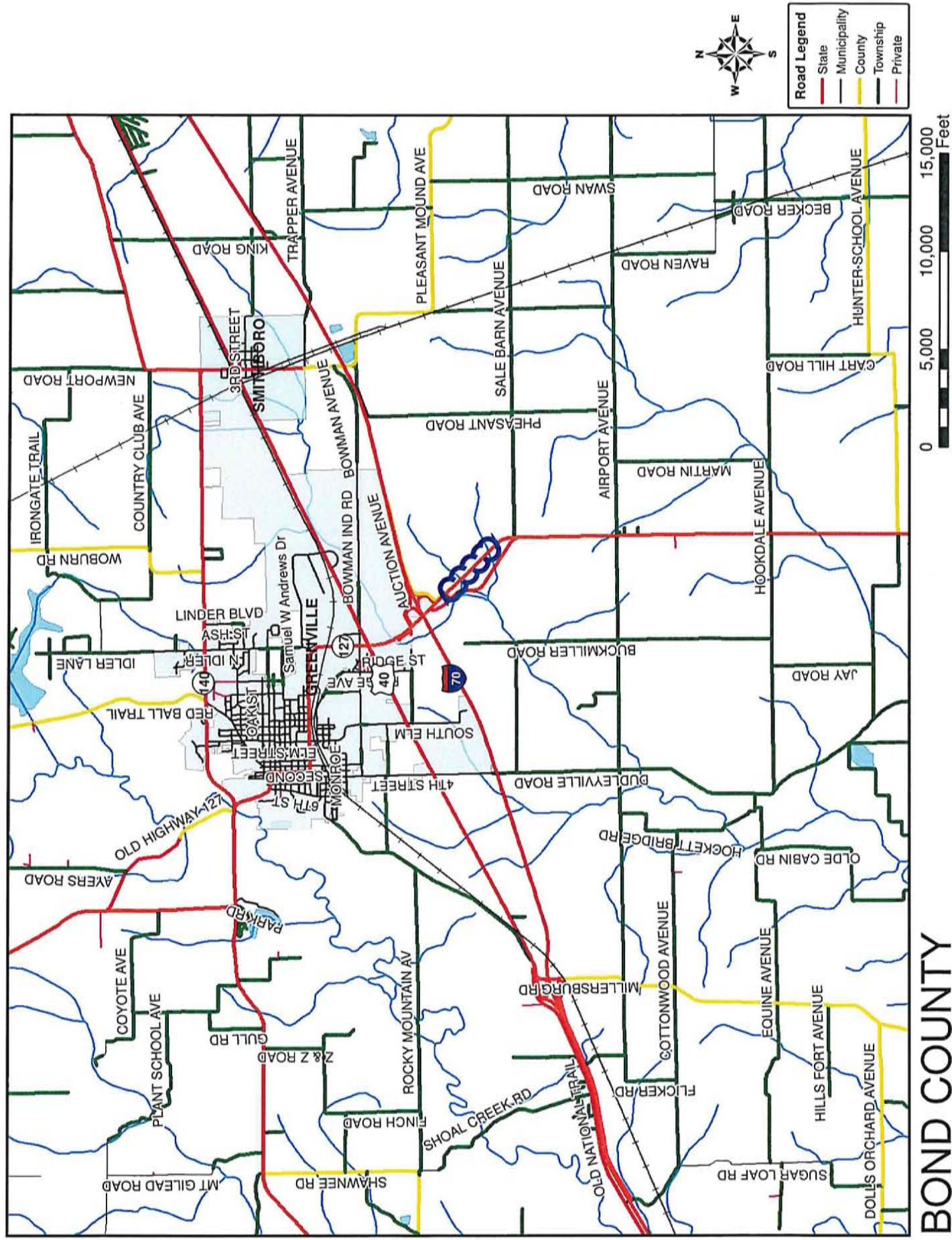
(618) 664-3311

Lake & East Harris

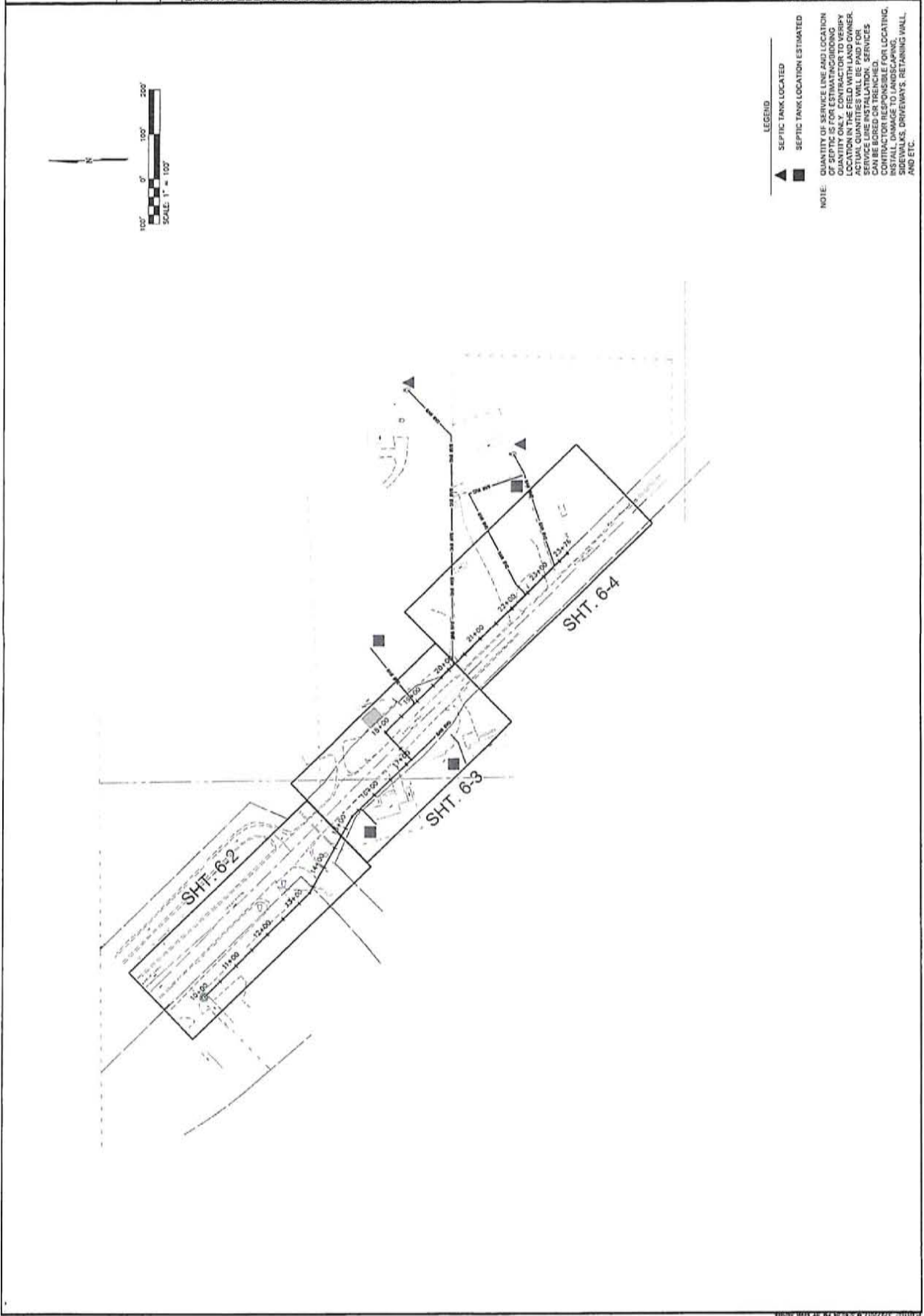
Greenville

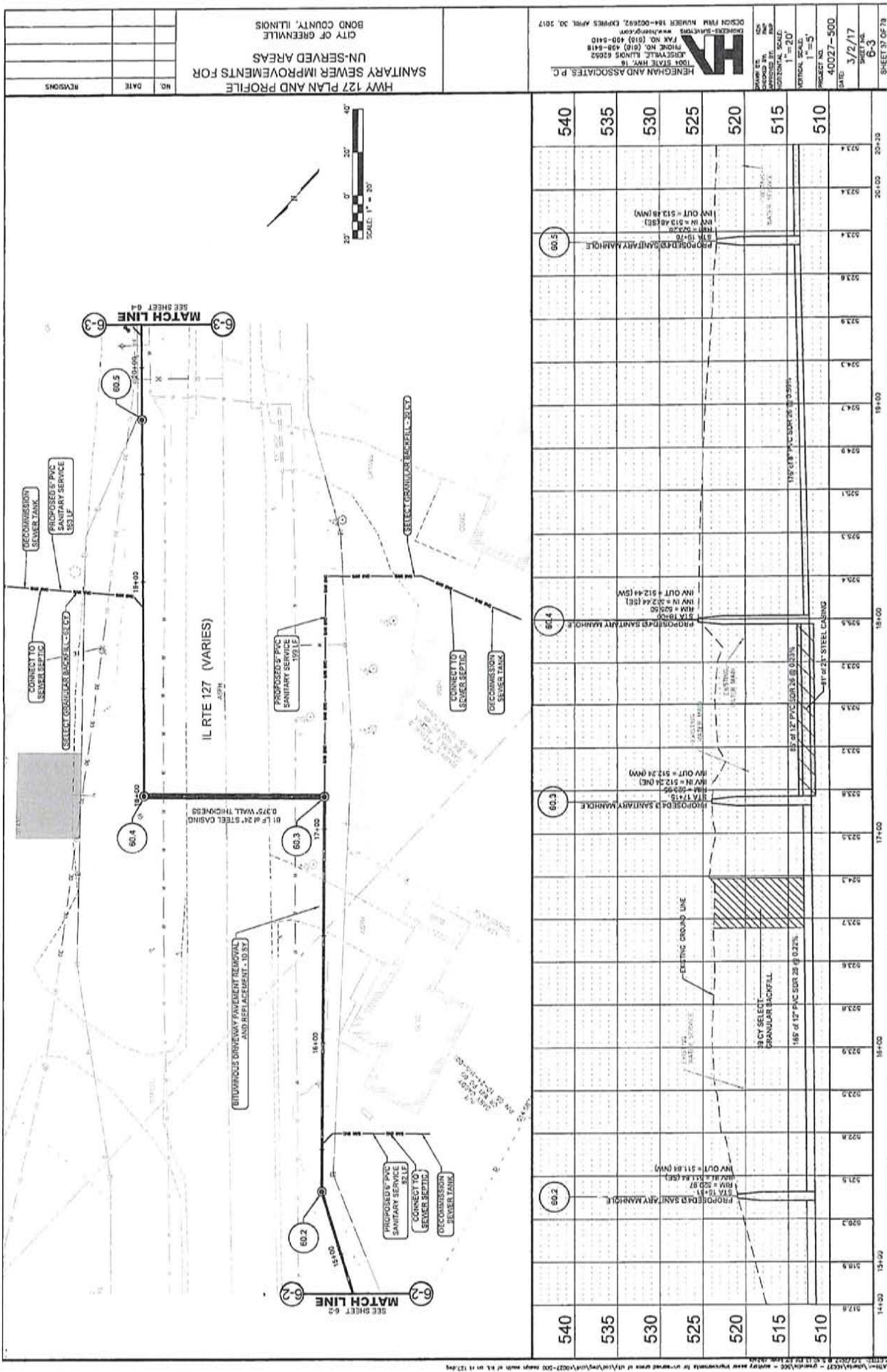
WALL Real Estate

664-1267



| | | | |
|--|--|--|------------------------------|
| HWY 127 SEWER EXTENSION SHEET LAYOUT SANITARY SEWER IMPROVEMENTS FOR UN-SERVED AREAS CITY OF GREENVILLE BOND COUNTY, ILLINOIS | | DESIGN FIRM HENGCHIAN AND ASSOCIATES, P.C. 1004 STATE HWY. 16 LEESVILLE, ILLINOIS 62452 PHONE NO. (618) 498-6118 FAX NO. (618) 498-6410 EMAIL: hca@hcaeng.com DESIGN FIRM NUMBER 184-000092, EXPIRES APRIL 30, 2017 | |
| SHEET NO. 6-1 | SHEET TOTAL 6-1 | PROJECT NO. 40027-500 | DATE 3/2/17 |
| DRAWN BY HENGCHIAN AND ASSOCIATES, P.C. | CHECKED BY HENGCHIAN AND ASSOCIATES, P.C. | APPROVED BY HENGCHIAN AND ASSOCIATES, P.C. | PERSONAL, TOTAL 1" = 100' |





HWY 127 PLAN AND PROFILE
UN-SERVED AREAS
CITY OF GREENVILLE
BOND COUNTY, ILLINOIS

DESIGN FIRM: HENEGHAN AND ASSOCIATES, P.C.
DESIGNER: J. HENEGHAN
PROJECT NO.: 40027-500
DATE: 3/2/17
SHEET NO.: 63
SHEET TOTAL: 63

CITY OF GREENVILLE
BOND COUNTY, ILLINOIS

[illegible]

55.01. SCOPE OF WORK

The CONTRACTOR shall furnish all equipment, machinery, labor and materials necessary to perform all operations in connection with the conventional boring and pulling or directional boring of sewer mains of the required diameter and type of material at locations that may be designated at time of construction. **Gravity pipe bores must be at grade with little or no tolerance, see below.**

The CONTRACTOR is responsible for any charges by IDOT and others during the course of the work and shall include such costs in their bid price.

Unless otherwise noted in these specifications, trenchless construction shall abide by Section 23 of the Standard Water and Sewer Specs.

55.02. CONSTRUCTION DETAILS

The alignment and elevation of the forward end of the boring shall be checked and if it does not meet the requirements of the permit, the auger will be pulled and a new boring made at no additional cost to the OWNER.

The CONTRACTOR shall fill over excavation of bore and recovery pits at entrance and exit of sewer main through bore hole with compacted sand or CA-6 to the bottom of the sewer main giving a sound foundation for the sewer main preventing the sewer main from shearing as the backfill settles. Payment for the sand or CA-6 shall be considered incidental to the contract price for bores.

Any cracking or damage caused by the boring operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER.

55.03. MINIMUM DISTANCE FROM PAVEMENT

This section shows the maximum distance beyond road surfaces the bore payment will extend without approval of the ENGINEER.

| | |
|-------------------|---------|
| State Highways | 20 feet |
| County Highways | 20 feet |
| Township Roadways | 15 feet |
| Driveways | 10 feet |

55.04. STEEL CASING MINIMUM SPECIFICATIONS

Casing pipe used for sewer mains shall be ASTM A139 Grade B, welded pipe. The minimum wall thickness for casing pipe shall be as follows, unless otherwise noted on the Drawings:

| Pipe Diameter (in.) | Wall Thickness (in.)* |
|---------------------|-----------------------|
| 6 | 0.28 |
| 8 | 0.322 |
| 10 | 0.365 |
| 12 – 48 | 0.375 |

*Note: Railroad crossings require greater wall thickness. The CONTRACTOR shall use the steel casing wall thickness approved by the railroad.

The casing pipe shall be bituminous tar lined inside and coated outside. Where two (2) sections of casing are welded together, a bituminous tar coating shall be applied to the welded joint.

Certain installation practices are necessary to protect the sewer main that is required to go through the casing pipe. These practices are necessary to prevent the pipe from resting on the joints, and provide for retrieval if repairs are necessary in the future. Prior to inserting the sewer main in the casing, casing spacers as specified in Section 10.04.07 and 52.04.09 shall be installed on the full length of pipe.

Restrained-joint PVC pipe shall be used inside of the casing pipe, with expansion couplings at both ends exterior to the casing (see also Section 52 of these Specifications). After installing the carrier pipe, both ends of the casing pipe shall be sealed by a method approved by the ENGINEER.

55.05. BORE AND JACK METHOD

A. GENERAL

The CONTRACTOR shall bore and jack steel casing pipe where called for on the Drawings. Boring or jacking under state and federal interstate highways, under railroads, and all locations called out on the Drawings shall be accomplished from pits located per the boring permits. The bore must be at grade with an alignment tolerance of +/- 3 inches and a grade tolerance of +/- 2 inches.

B. DAMAGED PAVEMENT

Any cracking or damage caused by the bore and jack operation to the traveled surfaces (regardless of the soil and/or rock type encountered) shall be repaired or replaced, at the CONTRACTOR's expense, as required by the OWNER, the ENGINEER, or the property owner.

55.06. BORE AND JACK CASING PIPE ON GRADE

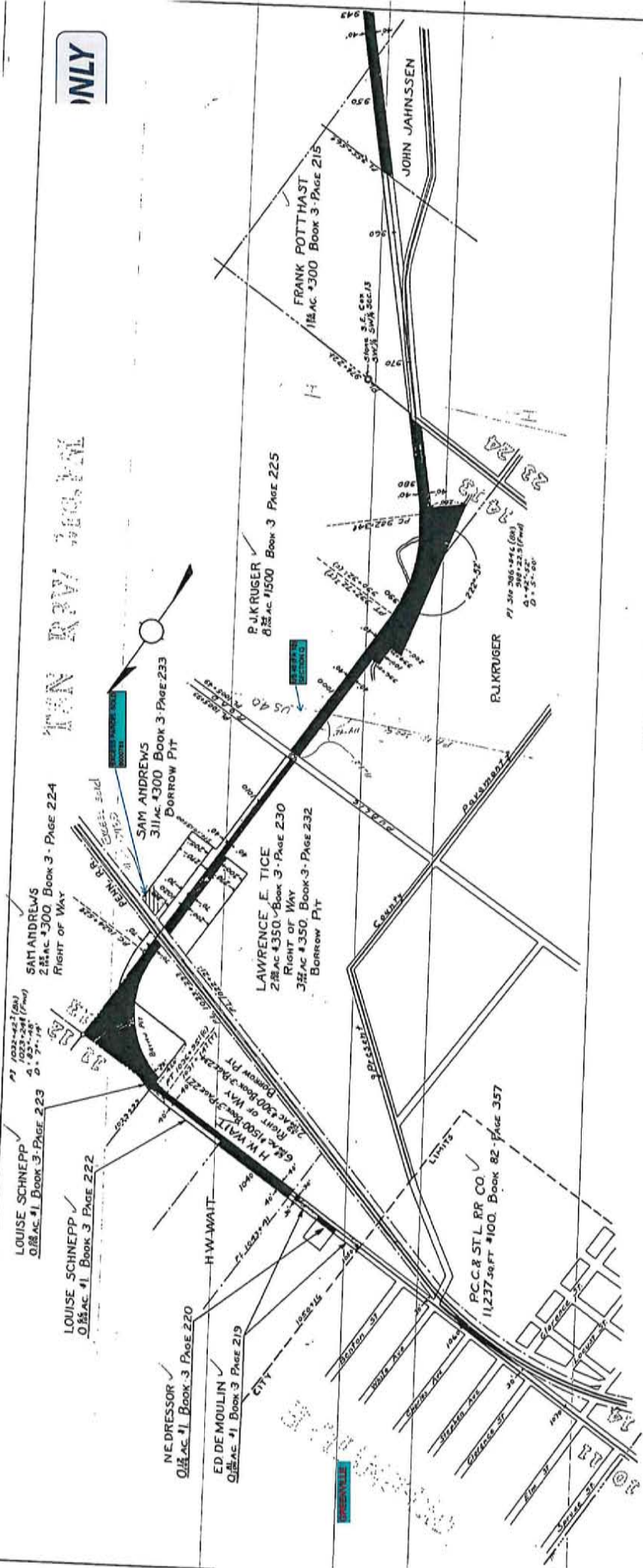
A. MATERIAL

Casing pipe shall be as specified on Drawings.

B. PAYMENT

This work shall be completed according to Sections 55.03, 55.04, and 55.06 above. The payment shall be per lineal foot per the bid schedule "Bore and Jack Casing Pipe On-Grade" for the material, diameter, and class as called out on the drawings. Payment will only be made for bores meeting tolerances listing in section 55.06. Although the payment lengths may be less than these specified distances, depending on field conditions and actual boring lengths, no payment for borings will be allowed beyond these specified distances without approval of the ENGINEER.

$\text{Area of } \triangle ABC = \frac{1}{2} \times 10 \times 10 = 50$
 $\text{Area of } \triangle ADE = \frac{1}{2} \times 6 \times 6 = 18$
 $\text{Area of } \triangle BDE = \frac{1}{2} \times 4 \times 4 = 8$
 $\text{Area of } \triangle CDE = \frac{1}{2} \times 4 \times 4 = 8$
 $\text{Area of } \triangle ADE + \triangle BDE + \triangle CDE = 18 + 8 + 8 = 34$
 $\text{Area of shaded region} = 50 - 34 = 16$



ONLY

SEE PM
R3W
3rd PM

MARGARET WEDEKIND
0.50A \$25.00 BOOK 3 PAGE 214

MAY LARRABEE
0.60A \$60.00 BOOK 3 PAGE 227

H.H. WALKER
0.51A \$50.00 BOOK 3 PAGE 217

W.M. R. MICHEL
0.60A \$50.00 BOOK 3 PAGE 231

JOHN JANUSSEN
9.34A \$160.00 BOOK 3 PAGE 214

LOUIS KLEINER
0.54A \$30.00 BOOK 3 PAGE 226

LILLIE MENEILL
0.52A \$30.00 BOOK 3 PAGE 228

JOSEPH BUCHMILLER
0.41A \$100 BOOK 3 PAGE 229

MOREY HEIRS
SEE PRECEDING SHEET

IDA DAVIS
SEE PRECEDING SHEET

ROUTE 127 SECTION 110
BOND COUNTY
STA 0+00 TO STA 9+43+00
SCALE 1"=400'





Illinois Department of Transportation

Memorandum

To: District Bureau of Operations - Jim Wessel
From: Project Support Paula Lehmann
Subject: INVESTIGATION OF UTILITY PERMIT APPLICATION
Date: 3/24/2017

PERMIT NO.: 8- 30431
APPLICANT: City of Greenville
ROUTE: SBI 127
MARKED ROUTE: IL 127
SECTION: 110
STATION: 941+00± to 950+50±
COUNTY: Bond
NATURE OF WORK: Install Sanitary Sewer Main

Please investigate the attached utility permit application; and, return with any recommendations.

Note below any special requirements you consider necessary in the permit. If application cannot be investigated within two weeks, please advise.

REMARKS:

No KNOWN IDOT ELECTRICAL FACILITIES HERE

D. WALKER 3-27-17

Will any entrances be impacted by this
Installation?

RMS 3-28-17

Attachments

Lehmann, Paula M

From: Roeckenhaus, Jason R
Sent: Monday, March 27, 2017 1:20 PM
To: Lehmann, Paula M
Subject: RE: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

No issues other than want no risers, boxes, etc. in ditch. Please place utility as far as possible near r.o.w. line.

From: Lehmann, Paula M
Sent: Friday, March 24, 2017 1:59 PM
To: Roeckenhaus, Jason R
Subject: Investigation of Utility Permit Application 8-30428; 8-30429; 8-30430; 8-30431

Please, investigate the attached utility permit applications; and, return with any recommendations. If applications cannot be investigated within 2 weeks, please advise.

Ms. Paula Lehmann
Permits and Agreements Technician
Division of Highways/District 8
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234-6198
Telephone (618) 346-3170
Fax (618) 346-3162
paula.lehmann@illinois.gov

Please consider the environment before printing this e-mail

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COUNTY HIGHWAY PERMIT
COUNTY OF BOND

THIS AGREEMENT made this 31st day of March 2017, between County Highway Engineer of Bond County, State of Illinois (hereinafter designated "County") and the City of Greenville (hereinafter designated "Owner"), their successors and assigns.

WHEREAS, Owner has requested permission and authority to construct, operate, maintain, repair, renew, extend, and remove an underground sanitary sewer collection system consisting of mains, manholes, and other appurtenances (hereinafter referred to as "sanitary sewer system") in, upon, along, under, and across county highways in the County of Bond and State of Illinois over which the County of Bond has now or may in the future have jurisdiction.

WHEREAS, it is in the public interest that such a sanitary sewer system be so constructed, operated, and maintained,

WHEREAS, the proposed installation is described as follows:

Boring sewer mains under County Highway (see list below).

Chart of Crossings

| Plan Sht. # | County Road | Pipe Dia | Bore Length |
|-------------|----------------|----------|--------------------|
| 11-4 | Red Ball Trail | 8in. | 60ft. (ROW to ROW) |

Longitudinal sewer main installation along County Right-of-Way in various locations.

Longitudinal Installation

| Plan Sht. # | County Road | Pipe Dia | Begin Sta. | End Sta. |
|-------------|----------------|----------|------------|----------|
| 11-5 | Red Ball Trail | 8in. | 16+50 | 18+41 |

NOW THEREFORE, BE IT RESOLVED, by the County that Owner be and are hereby granted the above-described permission and authority for a term of perpetuity commencing from this date, provided that the facility is so constructed to meet the approval of the County Engineer and that he is notified when construction is to begin.

This permission and authority and permit from the County Engineer of Highways is granted subject to the following limitations and conditions:

1. The OWNER shall submit a plan and specifications of any proposed work to the County Engineer of Highways for approval before any work is started. Said plan and specifications shall show the type and extent of work proposed

and any other pertinent information that might be required by the County Engineer of Highways. In case of minor or emergency repairs, no such plan and specifications will be required.

2. Upon completion of any work, the County Engineer of Highways shall be given written notifications, and, if completed in a satisfactory manner, he shall provide the OWNER with a letter of acceptance. This letter of acceptance shall in no way relieve the OWNER of his responsibility under this resolution.

3. All sanitary sewer mains shall be buried at least forty-eight inches (48") below the road surface and the road ditch, sufficient to permit proper maintenance of the roads and proper cleaning of all roadway ditches without interference of the sanitary sewer mains.

4. All disturbed roadway ditches shall be regraded and reseeded for proper drainage.

5. The construction company installing said sanitary sewer mains over and across County highways shall give the Bond County Highway Department at least forty-eight (48) hours' notice of each intended bore through the roads, and shall further permit said Bond County Highway Department to be present to inspect the installation, backfilling, and restoration of road ditch at the time of all work involving the County roads.

6. The OWNER upon written request of the County Engineer of Highways, will lower, relocate, or rearrange any of its pipe lines and appurtenances within the present limits of any said road Right-of-way at OWNER's expense whenever it becomes necessary in the construction, maintenance, or improvement of said roads.

7. The OWNER will be liable for the entire cost of relocation or damage to all existing utilities caused by the construction, maintenance, and repair to their own "sanitary sewer collection system".

8. In the case of damage to the existing highway caused by the construction, reconstruction, or maintenance of said sanitary sewer system, the OWNER shall repair said damage within ten days of receipt of written notification from the county, climatic conditions permitting. If, at the end of ten days, said damage to the highway is not repaired in a satisfactory manner, and the delay is not caused by climatic conditions, the County may repair said damage and the actual cost of such repair, including the cost of all material and labor, shall be paid to the County by the OWNER upon receipt of an itemized statement of costs.

9. The OWNER shall take all necessary precautions by use of signs, signals, flagmen, or watchmen, to protect the general public and all reasonable measures to cause least interference with traffic movement along the roadways where reconstruction or maintenance is in progress. All traffic control shall be in accordance with the State of Illinois "Manual of Uniform Traffic Control Devices" and amendments thereof.

10. The OWNER warrants that the sanitary sewer system shall be constructed, operated, and maintained in accordance with the rules and regulations promulgated by the Illinois Environmental Protection Agency and in

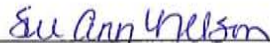
accordance with the laws, resolutions, ordinances, and regulations of the State of Illinois or any branch thereof.

11. The OWNER shall bore all sewer mains and services crossing County highways.
12. All sewer main passing under County highways shall be PVC Restrained-Joint pipe and shall extend a minimum of ten feet (10') from the edge of the pavement in both directions.

BE IT FURTHER RESOLVED that the County shall transmit two certified copies of this resolution to the City of Greenville, in care of David Willey, City Manager, 404 South 3rd Street, Greenville, IL 62246.

BE IT FURTHER RESOLVED that the permission and authority herein granted is limited to the jurisdiction the County may have over said highways, and does not presume to release the OWNER from fulfilling any and all statutes relating to constructing, operating, inspecting, maintaining, repairing, and changing the size of the sanitary sewer system and all appurtenances thereto and/or statutes relating to the right of owners of abutting property along said highways.

ACCEPTED: 
David Willey, City Manager
City of Greenville

ATTEST: 
Sue Nelson, City Clerk
City of Greenville

Approved and Permit granted this

29th day of MARCH, 2017.

Subject to the attached provisions.

Approved:


Jeremy Postle, County Engineer of Highways
Bond County Highway Department

Intentionally Blank

IEPA Permit

Intentionally Blank

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61718

PERMIT NO.: 2017-HB-61718

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 8, 2017

PREPARED BY: Heneghan and Associates, P. C.

SUBJECT: GREENVILLE-Fourth and Hillview
(City of Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 South Third Street
Greenville, IL 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

574 feet of service sewer, 3,033 feet of 8 inch sanitary sewer and 7 manholes to serve 90 acres residential and commercial/industrial development area (655 P.E., 65,500 GPD, DAF) located at the intersection of East Hillview Avenue and South 4th Street with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant. Permittee to Construct shall own and operate all service connections.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.


SPECIAL CONDITION 3: Horizontal and/or vertical separation between any sanitary sewers and water mains must be in conformance with Section 370.350 of the Illinois Recommended Standards for Sewage Works.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P. C.
Records - Municipal


Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61772

PERMIT NO.: 2017-HB-61772

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

PREPARED BY: Heneghan and Associates, P. C.

DATE ISSUED: February 24, 2017

SUBJECT: GREENVILLE-Rogier and Linder Sanitary Sewer Extension
(Greenville Sewage Treatment Plant) - Sanitary Sewer Permit



PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
Attn: Bill Grider
404 S. Third Street
Greenville, Illinois 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

5.427 feet of 8 inch sanitary sewer, 1,391 feet of 12 inch sanitary sewer, 3,258 feet of 15 inch sanitary sewer and 29 manholes to serve improved properties, existing homes, and some underdeveloped acreage (3,658 P.E., 365,800 GPD, DAF) located at 810 Linder Boulevard with discharge to the existing 15 and 8 inch sanitary sewers tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.


An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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n\yang\2016-61772.docx

DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P. C.
Records - Municipal


Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61714

PERMIT NO.: 2017-HB-61714

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 2, 2017

PREPARED BY: Henneghan and Associates, P.C.

SUBJECT: GREENVILLE-Route 127 Sanitary Sewer Extension
(City of Greenville STP) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 South Third Street
Greenville, IL 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

577 feet of 8 inch sanitary sewer, 716 feet of 12 inch sanitary sewer and 6 manholes to serve a residential and commercial/industrial development (1,021 P.E., 102,100 GPD, DAF) located at 2265 State Route 127 with discharge to an existing 18 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 3: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS

Henneghan and Associates, P.C.

Records - Municipal



Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61717

PERMIT NO.: 2017-HB-61717

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: January 27, 2017

PREPARED BY: Heneghan and Associates, P.C.

SUBJECT: GREENVILLE - Ridge-Bowman Industrial - Killdeer
(Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN AND OPERATE

City of Greenville
404 S. Third Street
Greenville, Illinois 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

658 feet of 8 inch sanitary sewer, 3658 feet of 12 inch sanitary sewer and 17 manholes to serve 13 single family dwelling buildings and one commercial building (49 P.E., 4900 GPD, DAF) located at the intersection of Ridge Avenue and Villa Verde Drive with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

SPECIAL CONDITION 3: The total waste load tributary to the proposed sewers referenced in this permit shall be limited to the available reserve capacity of the existing downstream sewer system.

SPECIAL CONDITION 4: The design of this sewer deviates from 35 Ill. Admin. Code, Subtitle C, Chapter II, Part 370 and as such if built as designed the applicant assumes all responsibilities related to any possible excessive maintenances required to keep adequate sewer service available to the users of this system. As such the applicant shall periodically check this sewer for restricted flow and clean the system when necessary when this occurs.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P.C.
Records - Municipal


Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61715

PERMIT NO.: 2017-IA-61715

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 3, 2017

PREPARED BY: Heneghan and Associates, P.C.

SUBJECT: GREENVILLE-Sunset Point and Mill Hill
(City of Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 S. Third Street
Greenville, Illinois 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

Construction of 13 grinder pumps each with a rated capacity of 11 gpm at 90.99 feet of TDH and construction of two grinder pumps each with a rated capacity of 14 gpm at 49.20 feet of TDH, 1872 feet of 1.5 inch force main, 600 feet of 2 inch force main and 855 feet of 3 inch force main to serve 15 existing single family dwelling buildings and five future single family dwelling buildings (74 P.E., 7400 GPD, DAF) located along Sunset Point and along West College Avenue with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates
Records - Municipal



Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61720

PERMIT NO.: 2017-IA-61720

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 3, 2017

PREPARED BY: Heneghan and Associates, P.C.

SUBJECT: GREENVILLE – North Taylor Sanitary Sewer Extension
(Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 S. Third Street
Greenville, IL 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

Construction of eight grinder pumps with a rated capacity of 11 gpm at 92.26 feet of TDH, 150 feet of 3 inch forcemain, 785 feet of 2 inch force main, and 485 feet of 1.5 inch force main to serve 8 existing single family dwellings (31 P.E., 3,100 GPD, DAF) located on Taylor Avenue with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.


SPECIAL CONDITION 3: The design of this force main deviates from 35 Illinois Admin. Code, Subtitle C, Chapter II, Part 370 and as such, if built as designed, the applicant assumes all responsibilities related to any possible excessive maintenances required to keep adequate sewer service available to the users of this system. As such, the applicant shall periodically check this force main for restricted flow and clean the system when necessary when this occurs.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P.C.
Records - Municipal


Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61716

PERMIT NO.: 2017-HB-61716

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 1, 2017

PREPARED BY: Heneghan and Associates, P.C.

SUBJECT: GREENVILLE - Route 140 and Red Ball
(Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 S. Third Street
Greenville, IL 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

1869 feet of 8 inch sanitary sewer and 8 manholes to serve 13 existing single family dwelling units, two commercial stores, a school bus garage (48 P.E., 4800 GPD, DAF) located at the intersection of Route 140 and Red Ball Trail with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 3: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P.C.
Records - Municipal



Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61719

PERMIT NO.: 2016-HB-61719

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: December 7, 2016

PREPARED BY: Heneghan & Associates, P.C.

SUBJECT: GREENVILLE- Beaumont
(City of Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 S. Third Street
Greenville, IL 62052

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

250 feet of 8 inch sanitary sewer and 1 manhole to serve future development (0 P.E., 0 GPD, DAF) located at the intersection of IL. Route 40 and East Beaumont Avenue with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 3: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan & Associates, P.C.
Records - Municipal


Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61722

PERMIT NO.: 2017-IA-61722

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 3, 2017

PREPARED BY: Heneghan and Associates, P.C.

SUBJECT: GREENVILLE - Harris
(Greenville Sewage Treatment Plant) - Sanitary Sewer Permit

PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 S. Third Street
Greenville, IL 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

Construction of four grinder pumps with a rated capacity of 15 gpm at 29.2 feet of TDH, 1,070 feet of 2 inch force main, and 375 feet of 1.5 inch force main to serve three existing commercial buildings and a proposed car lot (4 P.E., 400 GPD, DAF) located on Harris Avenue with discharge to an existing 15 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.


SPECIAL CONDITION 3: The design of this force main deviates from 35 Illinois Admin. Code, Subtitle C, Chapter II, Part 370 and as such, if built as designed, the applicant assumes all responsibilities related to any possible excessive maintenances required to keep adequate sewer service available to the users of this system. As such, the applicant shall periodically check this force main for restricted flow and clean the system when necessary when this occurs.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P.C.
Records - Municipal


Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2016-61771

PERMIT NO.: 2017-HB-61771

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 16, 2017

PREPARED BY: Heneghan and Associates, P.C.

SUBJECT: GREENVILLE-Bowman Industrial and Elm Sanitary Sewer Extension
(Greenville Sewage Treatment Plant) - Sanitary Sewer Permit



PERMITTEE TO CONSTRUCT, OWN, AND OPERATE

City of Greenville
404 S. Third Street
Greenville, IL 62246

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows (quantities are approximate):

2866 feet of 8 inch sanitary sewer and 8 manholes to serve a single family dwelling unit, a township maintenance building, and a sports complex (100 P.E., 10000 GPD, DAF) located at the intersection of East Bowman Drive and South Elm Street with discharge to an existing 8 inch sanitary sewer tributary to the above indicated sewage treatment plant.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Any connections to this sanitary sewer extension must be in accordance with the latest Revisions of Title 35, Subtitle C, Chapter 1. Permits must be obtained if required by said regulations.

SPECIAL CONDITION 2: If this project is located within a wetlands, the U.S. Army Corps of Engineers may require a permit for construction pursuant to Section 404 of the Clean Water Act.

SPECIAL CONDITION 3: The Permittee to Construct shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activities associated with this project will result in the disturbance of one (1) or more acres total land area.

An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control - Permit Section.

SPECIAL CONDITION 4: The design of this sewer deviates from 35 Ill. Admin. Code, Subtitle C, Chapter II, Part 370 and as such if built as designed the applicant assumes all responsibilities related to any possible excessive maintenances required to keep adequate sewer service available to the users of this system. As such the applicant shall periodically check this sewer for restricted flow and clean the system when necessary when this occurs.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

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DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Collinsville FOS
Heneghan and Associates, P.C.
Records - Municipal

Alan Keller, P.E.
Manager, Permit Section

**READ ALL CONDITIONS CAREFULLY:
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
 - a. to enter at reasonable times, the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
 - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
 - e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
 - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
 - b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;
 - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
 - d. does not take into consideration or attest to the structural stability of any units or parts of the project;
 - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
 - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
 - b. upon finding that any standard or special conditions have been violated; or
 - c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

NPDES Permit

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

217/782-0610

07/01/2016

CITY OF GREENVILLE
BILL GRIDER
403 S THIRD STREET
GREENVILLE, IL 62246

RE: FACILITY: SANITARY SEWER IMPROVEMENTS FOR UNSERVED AREAS GREENVILLE, IL
COUNTY: BOND NPDES Permit No:ILR10X014
Notice of Coverage Under Construction Site Activity Storm Water General Permit

Dear NPDES Permittee:

We have reviewed your application and determined that storm water discharges associated with industrial activity from construction sites are appropriately covered by the attached General NPDES Permit issued by the Agency. Your discharge is covered by this permit effective as of the date of this letter or as identified by the conditions of the permit. The Permit as issued covers application requirements, a storm water pollution prevention plan and reporting requirements.

As a Permit Holder, it is your responsibility to:

1. Submit a modified Notice of Intent of any **ownership or address change** to the Permit Section within 30 days;
2. **A Notice of Termination** must be sent to the Agency, at the address indicated on the Notice of Termination, once your construction project has been **completed and the site is properly stabilized**. A Notice of Termination form has been enclosed for your convenience;

This letter shows your facility permit number below the construction site name. Please save this number and reference it in all future correspondence. Should you have any questions concerning the Permit, please contact Cathy Demeroukas at (217) 782-0610.

Very truly yours,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

CC: **Records Unit**, Heneghan Associates, Region: Collinsville

4002 N. Main St., Rockford, IL 61103 (815) 967-7760
595 S. State, Elgin, IL 60120 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
5407 N. University St., Arbor 113, Peoria, IL 61614 (309) 693-5462
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 11-300, Chicago, IL 60601 (312) 814-6026

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SWPPP

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SWPPP
For the
City of Greenville
Sanitary Sewer Improvements for Unserved Areas
NPDES PERMIT NO. ILR10 _____

Location: Portions of the City of Greenville and adjacent areas just beyond the city limits along various roads and streets; State Highways 40, 140, and 127, 4th Street, Hillview Road, Bowman Drive, Killdeer Drive, Ridge Street, Sunset Point, Taylor Street, Asbury Street, Wil Mar Place, Harris Street, Red Ball Trail, Beaumont Avenue, Linder Boulevard, College Avenue, Dewey Street, and Idler Lane.

Owner: City of Greenville
404 South 3rd Street
Greenville, Illinois 62246

Project Description:

The "Sanitary Sewer Improvements for Unserved Areas" project is taking place to serve additional areas inside and near the city limits. The project consists of installing 24,800 lineal feet of 8-inch PVC gravity sewer main, 5,930 lineal feet of 1.5, 2, 3, 4, and 6-inch forced main, and appurtenances. The majority of the proposed sewer main will be trenched and/or bored, creating minimal disturbance.

It is estimated that approximately 25 acres of yards, pasture, timber, and tillable farmland will be disturbed due to the installation of the proposed sewer mains. Installation of the sewer main will not alter the existing drainage patterns. Therefore, erosion control structures will be installed only where existing topographic conditions necessitate their use. Depending on weather conditions the trench will be temporarily and/or permanently seeded within the time frame set forth under the general permit. After final stabilization, the runoff coefficient for the site will be the same as it was prior to construction.

Receiving Streams:

As the entire site encompasses approximately 9 square miles, there are numerous unnamed ditches and tributaries that carry storm water from the site to larger creeks. The named creeks that ultimately receive storm waters from the site include Beaver Creek, and East Fork Shoal Creek, ultimately the Kaskaskia River. Due to the type of construction, intermingling of off-site storm water is inevitable. Such intermingling, however, will be of little consequence due to the narrow width of disturbance.

Sequence of Major Activities and Appropriate Controls Implemented:

It is anticipated that the primary erosion controls implemented will be directional boring, silt fence, dirt berms and temporary/permanent seeding with mulch and inlet protection. However, any viable trench stabilization, slope stabilization or perimeter protection measure may be utilized in lieu of those described below.

Forced or Gravity Sewer Main:

1. Install sewer main by using either the trenching or boring method.
 - A. Utilize directional boring techniques at ditch and creek crossings in highly erodible areas to eliminate soil disturbance

- B. Install ditch checks perpendicular to the trench where terrain dictates their use to prevent soil erosion in the trench.
 - C. Install dirt berms on hillsides through on longer sloped areas as shown on the Drawings and described in the Specifications.
 - D. Temporarily seed and mulch any trenched areas where soil erosion could occur, except for those areas located in farm fields, within 14 days of original excavation.
2. Install service connections by excavating and exposing the new sewer main/lateral connection then trenching or boring the new service lateral as required, and connecting to existing private lateral line.
- A. Each excavation for service connections will be backfilled immediately and seeded and mulched (either temporarily or permanently) within 14 days.
3. After all above construction activities have been completed, any temporary erosion control measures utilized will be removed (except that temporary seeding and mulch may be worked into the soil) and the entire construction site will be graded and permanently seeded and mulched.

Compliance with Federal, State, County, and Local Regulations:

In addition to meeting the requirements of this general permit, construction activities related to the "Sanitary Sewer Improvements for Unserved Areas" shall comply with any and all Federal, State, County and Local regulations regarding storm water pollution prevention.

Maintenance Procedures:

1. Dirt Berms
- A. It is anticipated that dirt berms will require minimal maintenance as they are in place primarily to divert the runoff water away from the trench line. However, it may be necessary to reconstruct dirt berms or add additional dirt berms on a given hillside. It will also be necessary to temporarily seed and mulch dirt berms to prevent erosion of the berm itself.
2. Temporary and Permanent Seeding:
- A. Reseed and re-mulch any areas where initial seeding efforts did not work.
 - B. Any time it is necessary to redistribute the sediment collected against the erosion control structures it will likely also be necessary to reseed and re-mulch the same area.
3. Silt Fence:
- A. Sediment collected against the silt fence shall be removed and redistributed any Time the sediment exceeds 25% of the silt fence height.
 - B. Silt fence shall be inspected for depth of sediment, tears, to ensure fabric is securely attached to fence posts, and to see that the fence posts are firmly in the ground.

4. Inlet Protection:

- A. Inlet and pipe protection shall be placed as indicated on the plans or at every storm sewer inlet/crossroad culvert entrance. All inlet and pipe protection shall be maintained by removing sediment collected and restoring to original condition. Sediment collected against the BMP shall be removed and redistributed any time the sediment exceeds 25% of the BMP's effective height.

5. Ditch Checks:

- A. Ditch checks shall be placed in the ditches as indicated on the plans or at every 1.5 foot fall/rise in ditch grade. Straw bales, hay bales, and perimeter erosion barrier/silt fence will not be permitted for temporary or permanent ditch checks. Ditch checks shall be composed of aggregate, silt panels, rolled excelsior, urethane foam/geotextile (silt wedges), earth median. Ditch checks will be maintained by removing silt build up when sediment collected against the BMP shall be removed and redistributed any time the sediment exceeds 25% of the BMP's effective height.

Construction Materials and Site Access:

All materials for construction such as PVC piping, DI fittings, concrete blocks, man holes, etc., and their related containers shall be neatly stored and wastes generated from these materials shall be properly disposed of. To the extent possible, the construction materials shall be stored at one general location in a neat and orderly fashion. This does not, however, prohibit the contractor from laying out pipe, fittings, and/or related appurtenances ahead of the excavation (as per the specifications). Any waste material generated from construction related work shall be placed in dedicated containers or otherwise properly disposed of at the end of each day.

To the extent possible, there shall be a single entrance/exit access point to the material storage site and to any other single site where the contractor will be working for an extended period of time (> 2 weeks). This access point shall consist of an all weather surface to limit the movement of sediment off site.


Inspections:

A qualified individual (as defined by the IEPA) and assigned by the contractor shall observe all disturbed areas of the construction site at least once every seven (7) days and within 24-hours of a rainfall event that is 0.5 inches or greater or an equivalent snowfall. The observer shall review the usefulness of each erosion and sediment control measure implemented, shall indicate on the report and notify the SWPPP coordinator of any maintenance required, and shall also note any areas that appear to require additional measures to prevent erosion of disturbed soils. Any apparent revisions to the SWPPP shall be made to the plan and implemented within seven (7) calendar days following the observation. Similarly, maintenance of existing measures shall be continuous throughout the project and shall, in no instance be left unattended for more than seven (7) days after notification. Each site observation shall be finalized by writing a report summarizing the scope of the observation, name(s) and qualifications of the observer(s), date, major observations, and actions taken as a result of the findings. A copy of each report shall be attached to, and become part of, the SWPPP.

When the ground is frozen and/or between rainfall events of 0.5 inches or greater, no site visit will be required. An inspection report, however, will still be completed at least once every seven days indicating the conditions that eliminated the need for a site visit.

Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

A handwritten signature in black ink, appearing to read "Scott W. Elliott", written over a horizontal line.

Heneghan and Associates

Contractor Certification:

Contractors and/or subcontractors responsible for implementation of any of the above-mentioned erosion protection measures must sign the certification below:

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification."

General Contractor

David Hoellke 5/24/16
Signature Date

President
Title

Hoellke Plumbing Inc
Company Name

22974 East County Rd Jerseyville, IL 62052
Company Address

618-498-5185
Company Phone

Sub-Contractor(s)

Signature Date

Title

Company Name

Company Address

Company Phone

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

GENERAL INFORMATION

Project Name: Sanitary Sewer Improvements to Unserved Areas

Location: Various throughout Greenville

Date of Inspection:

Start/End Time:

Inspector's Name:

Inspector's Title:

Inspector's Contact Information:

Describe present phase of construction:

Type of Inspection:

☐ Regular

☐ Pre-storm event

☐ During storm event

☐ Post-storm event

WEATHER INFORMATION

Has there been a storm event since the last inspection? ☐ Yes ☐ No

If yes, provide:

Storm Start Date & Time:

Storm Duration (hrs):

Approximate Amount of Precipitation (in):

Weather at time of this inspection?

☐ Clear

☐ Cloudy

☐ Rain

☐ Sleet

☐ Fog

☐ Snowing

☐ High Winds

☐ Other:

Temperature:

Have any discharges occurred since the last inspection? ☐ Yes ☐ No

If yes, describe:

Are there any discharges at the time of inspection? ☐ Yes ☐ No

If yes, describe:

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Inspector

Printed Name and Title

Date

OVERALL SITE ISSUES

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

| BMP/activity | Implemented? | Maintenance Required? | Corrective Action Needed and Notes |
|--|--|--|------------------------------------|
| 1. All inactive slopes and disturbed areas have been stabilized. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 2. Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 3. Are all sanitary waste receptacles placed in secondary containment and free of leaks? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 4. Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 5. Are discharge points and receiving waters free of any sediment deposits? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 6. Are storm drain inlets properly protected? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 7. Is the construction exit preventing sediment from being tracked into the street? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 8. Is trash/litter from work areas collected and placed in covered dumpsters? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 9. Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 10. Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 11. Are materials that are potential stormwater contaminants stored inside or under cover? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 12. Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 13. (Other) | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | |

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