



EST. 1960

Willowbrook

7760 Quincy Street
Willowbrook, IL 60527-5594

Phone: (630) 323-8215 Fax: (630) 323-0787 www.willowbrookil.org

Mayor

Frank A. Trilla

Village Clerk

Leroy R. Hansen

Village Trustees

Dennis Baker

Sue Berglund

Umberto Davi

Terrence Kelly

Michael Mistele

Paul Oggerino

Village Administrator

Tim Halik

Chief of Police

Mark Shelton



Proud Member of the
Illinois Route 66 Scenic Byway

AGENDA

REGULAR MEETING OF THE MUNICIPAL SERVICES COMMITTEE TO BE HELD ON MONDAY, JANUARY 12, 2015, AT 6:00 P.M. AT THE VILLAGE HALL, 7760 QUINCY STREET, IN THE VILLAGE OF WILLOWBROOK, DUPAGE COUNTY, ILLINOIS.

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF MINUTES – November 10, 2014 Regular Meeting of the Municipal Services Committee
4. DISCUSSION – Village Hall Water Tower Rehabilitation Project
5. DISCUSSION – LED Streetlight Replacement Project
6. DISCUSSION – Mosquito Abatement Program Contract: Clarke Environmental
7. REPORT – Municipal Services Department:
 - a. November & December Monthly Permit Activity Reports
 - b. October & November Water System Pumpage Report
8. VISITOR'S BUSINESS
(Public comment is limited to three minutes per person)
9. COMMUNICATIONS
10. ADJOURNMENT

MINUTES OF THE REGULAR MEETING OF THE MUNICIPAL SERVICES
COMMITTEE OF THE VILLAGE OF WILLOWBROOK HELD ON MONDAY,
NOVEMBER 10, 2014 IN THE VILLAGE HALL, 7760 QUINCY STREET, IN THE
VILLAGE OF WILLOWBROOK, DUPAGE COUNTY, ILLINOIS

1. CALL TO ORDER

Chairman Mistele called the meeting to order at 6:00 PM.

2. ROLL CALL

Those present at roll call were Chairman Michael Mistele, Trustee Suzanne Berglund, and Administrator Tim Halik. Absent: None.

3. APPROVAL OF MINUTES

After review of the draft minutes from the October 13, 2014 Rescheduled Regular Meeting of the Municipal Services Committee, Chairman Mistele made a motion to approve the minutes as presented. Trustee Berglund seconded the motion. Motion carried.

4. DISCUSSION – PROPOSAL FOR UNDERGROUND STORAGE TANK REMOVAL, ENVIRONMENTAL CONSULTING, AND EARLY ACTION REMEDIATION SERVICE, 7760 QUINCY STREET – METRO TANK & PUMP COMPANY

Administrator Halik advised the committee that the Village maintains two - 2,000 gallon underground storage tanks at the current Village Hall along with one dispenser pump and all associated equipment in compliance with the Illinois Office of State Fire Marshall requirements. Halik advised that the maintenance of the fuel system, along with required compliance with changing OSFM regulations, is expensive. On October 7, 2014 our current fuel vendor, Warren Oil, advised that based on our limited fuel consumption they would be forced to apply a \$100 delivery charge per fill-up in order to maintain the account. For these reasons, the Village Board, during our FY 2014/15 budget discussions, directed staff to work towards the eventual elimination of the Village Hall fueling station. Staff has met with several vendors and consultants to determine a plan for both the elimination of the Village Hall fueling station and a recommendation for obtaining fuel for Village equipment. Halik advised that with regard to removal of the existing tanks and dispenser, staff recommends acceptance of the proposal received by Metro Tank & Pump. Under this proposal, Metro will evaluate the property and secure a Leaking Underground Storage Tank, LUST, incident number prior to applying for a removal permit from the OSFM. If contamination is identified, both the tank removal costs and removal of contaminated soil be eligible for LUST Fund reimbursement. The Village would pay a \$5,000 deductible. If no contamination is found during the evaluation stage, the remainder of the contract would be void. Our fuel consultant, Texor Petroleum, advises that this plan would be the most economical for the Village to remove the tank, if contamination is present. With regard to obtaining fuel for Village equipment, staff recommends the use of a Fleet Card Program, such as the one offered by World Fuel Services – the Vantage Card. Under this program, fuel may be obtained from a number of fueling stations including Amoco, BP, Citgo, Marathon, Mobil, Phillips 66, Shell, Texaco, and others. Billing would be performed by World Fuel Services. Although the Village would pay the retail rate, minus Illinois sales tax, for fuel, there are accounting, control and tracking benefits with this program that will prove useful to the Village. Numerous reporting options are provided along with the ability

to track and limit usage by cards. Purchase alerts can be set-up and cards can be quickly suspended if lost or if an abuse is identified. Halik advised that, with regard to the tank removal, staff would recommend that the proposal submitted by Metro be accepted so that the site evaluation process can be performed as soon as possible before the onset of the winter season. Staff also recommends that the Village apply for a revolving credit account using the Vantage Card Program from World Fuel Services. Chairman Mistele asked whether the identified soil contamination must extend beyond the "liner" to qualify as being a leak. Halik responded that he was unsure, but could check with Metro. Chairman Mistele also asked which banking facility does Work Fuel Use. Again, Halik responded that he was unsure, but could request that information from Vantage. Chairman Mistele stated that he was in agreement with staff's recommendation. He further recommended that when staff implements the fuel card program consideration be given to assigning one card per Village vehicle. Halik advised that when departments meet to discuss the implementation of the fuel card program, the potential use of one card per Village vehicle will be considered.

5. REPORT – Municipal Services Department

- a. Administrator Halik reviewed the monthly permit activity report for October 2014. The Village has taken in about \$36,500 in permit revenue for the month. Halik advised that in total for the first six months of fiscal year 2014/15, the Village has received approximately 71% of the anticipated FY2014/15 budgeted revenue.
- b. Administrator Halik shared the water system pumpage report for September 2014. The report indicates that the Village pumped slightly under 32,000,000 gallons in the month. At this point, we have pumped about 10.7% less water this year as compared to the same timeframe last year. Halik also advised that, although we are only five months into the fiscal year, we are about where we should be in order to meet our estimated pumpage projection of 385,000,000 gallons.

6. VISITOR'S BUSINESS

(None)

7. COMMUNICATIONS

Trustee Berglund inquired as to whether the Village tracks phones at Village Hall. Administrator Halik responded that various employees are assigned a cellular phone for Village use, and that the monthly bills for our Verizon cell phone contract includes the ability to review an itemization of individual calls made during the billing period, if need be.

Chairman Mistele inquired about a delinquent water bill notice that he had seen in the Board packet with the owner listed as Eugene Noose, which is our former mayor from years ago. Halik advised that the account is paid by former Mayor Noose's son, who is now in control of the property after the passing of former Mayor Noose and his wife.

8. ADJOURNMENT

Motion to adjourn was made by Chairman Mistele and seconded by Trustee Berglund. The meeting was adjourned at 6:17 PM.

(Minutes transcribed by: Tim Halik, 1/8/15)

**MUNICIPAL SERVICES COMMITTEE MEETING
AGENDA ITEM SUMMARY SHEET**

AGENDA ITEM DESCRIPTION

DISCUSSION –

VILLAGE HALL WATER TOWER REHABILITATION PROJECT

COMMITTEE REVIEW

- ☐ Finance/Administration
☒ Municipal Services
☐ Public Safety

Meeting Date:

January 12, 2015

- | | |
|--|--|
| <input type="checkbox"/> Discussion Only
<input type="checkbox"/> Seeking Feedback
<input type="checkbox"/> Regular Report | <input checked="" type="checkbox"/> Approval of Staff Recommendation (for consideration by Village Board at a later date)
<input type="checkbox"/> Approval of Staff Recommendation (for <u>immediate</u> consideration by Village Board)
<input type="checkbox"/> Report/documents requested by Committee |
|--|--|

BACKGROUND

On June 10, 2013, the Village Board adopted Resolution No. 13-R-30 accepting a proposal from Stand Associates to perform an engineering analysis of the protective coatings on all three (3) of the Village's above grade water tower structures. These three water tanks were last sandblasted and re-coated in 1999, 2001 and 2002 and are experiencing varying degrees of wear. The final reports recommended that the tanks be re-coated within the next five (5) years. This project was discussed at both the Committee Budget Review meeting and the Board Budget Workshop. The Board agreed to the following schedule to complete the program, pending funding considerations.

STRUCTURE	ITEM/SCHEDULE/COST	TOTAL COST PER TANK
Village Hall Tank (500,000 gallon spheroid)	Engineering Design – FY 2014/15: \$19,000	\$468,000
	Rehabilitation – FY 2015/16: \$430,000	
	Engineering Construction – FY 2015/16: \$19,000	
Standpipe (3,000,000 gallon)	Exterior:	\$946,000
	Engineering Design – FY 2015/16: \$19,000	
	Rehabilitation – FY 2016/17: \$572,000	
	Engineering Construction – FY 2016/17: \$14,000	
	Interior:	
	Rehabilitation – FY 2017/18: \$328,000	
67 th Street Tank (500,000 gallon spheroid)	Engineering Construction – FY 2017/18: \$13,000	\$478,000
	Engineering Design – FY 2017/18: \$19,000	
	Rehabilitation – FY 2018/19: \$440,000	
	Engineering Construction – FY 2018/19: \$19,000	

The FY 2014/15 budget includes \$20,000 to complete the first year work of the 5-year plan to re-coat all three (3) of the Village's above grade water storage tanks. Year 1 of the plan includes the development of design specifications and bidding related services pertaining to the re-coating of the Village Hall tank. On May 27, 2014, the Village Board accepted a proposal from Strand Associates to develop the bid document.

REQUEST FOR FEEDBACK

The bid document for this project is now complete, and has been reviewed by the Village Attorney. The final version is attached. The following is the proposed bid timeline:

- 1/12/15 – Municipal Services Committee authorization to go out to bid
- 1/16/15 – Public Bid Notice is published in the Suburban Life newspaper
- 2/4/15 – Public Bid Opening is held at Village Hall
- 2/9/15 – Bid results are shared with the Municipal Services Committee
- 2/23/15 – Village Board Awards a Contract

STAFF RECOMMENDATION

Authorize staff to publish a bid notice for this project and solicit bids. The bid results will be brought back to the Committee for review and discussion

DRAFT-Final

Professional

Engineering

Services

**Executive
Elevated Tank
Rehabilitation**

Contract 1-2014

Project Manual

Village of

Willowbrook, IL

Issued for Bid

January 16, 2015

RECEIVED

JAN -9 2015

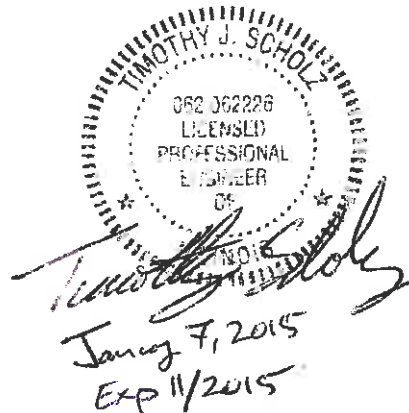
VILLAGE OF
WILLOWBROOK

SA
STRAND
ASSOCIATES

PLAN HOLDER: _____

Set No.: _____

PROJECT MANUAL
EXECUTIVE TANK REHABILITATION
CONTRACT 1-2014
VILLAGE OF WILLOWBROOK, ILLINOIS



Prepared by:

STRAND ASSOCIATES, INC.®
IDFPR No. 184-001273
1170 South Houbolt Road
Joliet, IL 60431
www.strand.com

Issued for Bid
January 16, 2015



SECTION 00010

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END OF SECTION

BIDDING AND CONTRACTING REQUIREMENTS

SECTION 00100
ADVERTISEMENT TO BID
EXECUTIVE TANK REHABILITATION
CONTRACT 1-2014
VILLAGE OF WILLOWBROOK, ILLINOIS

The Village of Willowbrook, Illinois will receive sealed Bids for the repainting and rehabilitation of the 500,000-gallon spheroidal water storage tank known as the Executive Water Storage Tank until 10 A.M., local time, February 4, 2015, at Village Hall, 7760 Quincy Sreet, Willowbrook, IL 60527, at which time the Bids will be publicly opened and read aloud.

The Work includes repainting of a 500,000-gallon steel, single-pedestal, water spheroid elevated tank, complete surface preparation and new coatings for the exterior and interior wet, and partial surface preparation and coatings for the interior dry. Provision and installation of a failsafe roof vent and miscellaneous steel repair work shall also be performed. All work shall be inside containment. All tank appurtenances shall be included.

Bids are to be addressed to the Village of Willowbrook, 7760 Quincy Street, Willowbrook, IL 60527, and shall be marked "Sealed Bid-Executive Tank Rehabilitation-Contract 1-2014."

Complete digital Project Bidding Documents are available at www.strand.com or at www.questcdn.com. Download the digital Bidding Documents for \$50 by inputting Quest project number 3650760 on the website's Project Search page. Please contact QuestCDN.com at (952) 233-1632 or info@questcdn.com for assistance with free membership registration, downloading, and working with this digital project information.

Bidding Documents may be reviewed and paper copies may be obtained from the Issuing Office which is Strand Associates, Inc.[®], 1170 South Houbolt Road, Joliet, IL 60431. A nonrefundable fee of \$150 will be required (shipping and handling fees included). Overnight mailing of Bidding Documents will not be provided.

All Bidders submitting a sealed Bid shall obtain the Bidding Documents from QuestCDN.com or from Strand Associates, Inc.[®]

Bidders who submit a Bid must be a Plan Holder of record at the Issuing Office. Bids from Bidders who are not on the Plan Holders List may be returned as not being responsive.

Plan Holders are requested to provide an e-mail address if they wish to receive addenda and other information electronically. Plan Holders are requested to designate whether they are a prime contractor, subcontractor, or supplier if they want this information posted on the project Plan Holders List.

The Bid must be accompanied by Bid security made payable to OWNER in an amount of 10% of the Bidder's maximum Bid price.

Bidders will be required to comply with all laws, including those relating to the employment of labor and the payment of the general prevailing rate of hourly wages in the locality in which the work is to be performed for each craft or type of worker or mechanic needed to execute the contract or perform such work, also the general prevailing rate for legal holiday and overtime work (including, but not necessarily limited to 820 ILCS 130/1-12 the "Prevailing Wage Act") as ascertained by the Village or by the Illinois

Department of Labor for DuPage County, Illinois shall be paid for each craft or type of worker needed to execute the contract or to perform such work.

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, 30 ILCS 570, as two consecutive months of unemployment exceeding 5%, CONTRACTOR agrees to employ a work force that consists of at least 90% Illinois laborers. An "Illinois laborer" is defined as any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident. The Bidder shall require all subcontractors (if any) to conform with said laws, and any rules or regulations now and thereafter issued pursuant to said laws by Bidder, his subcontractors, and/or anyone working through or on behalf of Bidder or Bidder's subcontractors.

The Village of Willowbrook reserves the right to reject any or all Bids, to waive any technicality, and to accept any Bid which it deems advantageous. All Bids shall remain subject to acceptance for 85 days after the time set for receiving Bids.

Contract award shall be made based on the lowest responsive and responsible Bidder.

The Strand Associates, Inc.[®] project manager is Timothy J. Scholz, P.E., who can be contacted at Strand Associates, Inc.[®], 1170 South Houbolt Road, Joliet, IL 60431, (815) 744-4200 regarding the project.

Published by the authority of the Village of Willowbrook
Leroy Hansen, Village Clerk

Dated at Willowbrook, Illinois
January 16, 2015

END OF SECTION

SECTION 00200

INSTRUCTIONS TO BIDDERS

- A. These Instructions to Bidders establish requirements for Bidding and Award of Contract.
- B. These articles are not necessarily numbered consecutively.
- C. Table of Contents

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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 the Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- A. Issuing Office-The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

ARTICLE 2—COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained digitally or by paper copy as stated in the Advertisement to Bid.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assume 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 confer a license or grant for any other use.

2.04 Drawings and specifications for the project are being offered to Bidders in both paper copy and electronic form (.pdf format). Such Bidder must have Adobe Reader 6.0 or later to access the electronic files. Paper copies will be used for Contract execution.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, within five days of OWNER's request, Bidder shall submit written evidence such as financial data, previous experience, present commitments and other such data as may be called for below.

3.02 Bidder must be prepared to submit evidence of Bidder's qualifications to do business in the state where the Project is located prior to award of the Contract.

3.03 Bidders shall submit the documentation listed in Paragraph 7.01 of the Bid Form (Section 00400).

3.04 Bidder is advised to carefully review those portions of the Bidding Documents requiring Bidder's representations and certifications.

ARTICLE 4—EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA AND SITE

4.01 Subsurface and Physical Conditions

A. The Supplementary Conditions identify, if any,

1. Those reports known to OWNER of explorations and tests of subsurface conditions at or contiguous to the Site.

2. Those drawings known to OWNER of physical conditions relating to existing surface and subsurface structures at the Site (except Underground Facilities).

B. Copies of reports and drawings referenced in Paragraph 4.01.A, which are not included with the Bidding Documents, will be made available by OWNER to any Bidder on request. Reports and drawings, whether included in the Bidding Documents or not, are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.02 Underground Facilities

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities, including OWNER, or others.

4.03 Hazardous Environmental Condition

A. The Supplementary Conditions identify those reports and drawings known to OWNER relating to a Hazardous Environmental Condition identified at the Site.

B. Copies of reports and drawings referenced in Paragraph 4.03.A, which are not included in the Appendices to the Bidding Documents, will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 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 4.02, 4.03, and 4.04 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 4.06 of the General Conditions.

4.05 On request in advance and after submittal of Bidder's evidence of insurance coverage meeting the requirements designated in the General and Supplementary Conditions, OWNER will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. 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. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.06 OWNER-Related Items

A. Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by OWNER or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, OWNER will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such other work.

B. Paragraph 6.13.C of the General Conditions indicates that if an OWNER safety program exists, it will be noted in the Supplementary Conditions.

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

A. examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;

B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy Bidder as to all federal, state, and local 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 contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Paragraph 4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data";

E. consider the information known to Bidder; 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, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;

F. agree at the time of submitting its Bid that 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(s) 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; and

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work.

ARTICLE 5-PREBID CONFERENCE

5.01 A prebid conference will not be held for the Project.

ARTICLE 6--SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment are to be obtained and paid for by CONTRACTOR.

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 mailed or delivered to all parties recorded by Issuing Office as having received the Bidding Documents.

7.02 All requests for interpretation must be received at least five days prior to the day set for receiving Bids. Addenda will be mailed not later than three days prior to the day set for receiving Bids. Failure of any Bidder to receive any such Addendum or interpretation shall not relieve such Bidder from any obligations under the Bid as submitted. All Addenda so issued shall become part of the Contract Documents.

7.03 Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.04 Addenda may also be issued to clarify, correct, or change the Bidding Documents as deemed advisable by OWNER or ENGINEER.

7.05 Receipt of all addenda must be acknowledged in space provided in the Bid.

ARTICLE 8--BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to OWNER in an amount of 10 percent of the Bidder's maximum Bid price and in the form of a cashier's, certified, or bank check or a Bid Bond (on form attached) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award. 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 annul the Notice of Award and the Bid security of the Bidder will be forfeited.

8.03 Bid security of Bidders will be retained unless requested to be returned and will not be returned until after Contract has been awarded or until the Bid hold period expires.

ARTICLE 9--CONTRACT TIMES

9.01 The numbers of days within which, or the dates by which the Work is to be substantially completed and ready for final payment are set forth in the Agreement (or incorporated therein by reference to the attached Bid Form).

ARTICLE 10-LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 11-SUBSTITUTE OR "OR EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without evaluation of possible substitute or "or equal" items. Whenever it is specified or described in the Bidding Documents that an Equipment Alternative listed in the Lump Sum Base Bid or that a substitute or "or equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be evaluated by ENGINEER until after the Effective Date of the Agreement.

ARTICLE 12-SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. 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, individuals, or entities if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity may, before the Notice of Award is given, request the apparent successful Bidder to submit an acceptable substitute without an increase in the Bid.

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, individuals, or entities. Declining to make requested substitutions will not constitute grounds for the forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity 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 revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06.B of the General Conditions.

12.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

ARTICLE 13-BID

13.01 The Bid Form is included with the Bidding Documents.

13.02 All blanks on the Bid Form must be completed by printing in ink and the Bid signed in ink. A Bid price shall be indicated for each section, Bid item, alternative, adjustment unit price item or unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered. Erasures or alterations shall be initialed in ink by the person signing the Bid Form.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or vice president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

13.04 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 official address of the partnership shall be shown.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member, if the LLC is member-managed, or by a manager, if manager-managed, and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture shall be shown.

13.08 All names shall be printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid form.

13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

13.11 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 qualification prior to award of the Contract. Bidder's state contractor license number for the state of the Project, if any, shall also be shown on the Bid Form.

13.12 All Bids shall be signed in the presence of and be notarized by a Notary Public or other Officer authorized to administer oaths.

ARTICLE 14-BASIS OF BID; EVALUATION OF BIDS

14.01 Computed Total Base Bid

A. Bidder shall submit a Bid on a computed total base bid basis. The price for all base bid items shall be included in the computed total base bid. Bidder shall include a separate price for each alternative described in the Contract Documents and as provided for in the Bid. The price for each alternative will be the amount to be added to or deducted from the price of the base bid if OWNER selects the alternative. Consideration of alternatives will be made prior to the Notice of Award.

B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.

14.02 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. Discrepancies between words and figures will be resolved in favor of the words.

ARTICLE 15–SUBMISSION OF BIDS

15.01 Bids will be received for all divisions of the Specifications and all other provisions of the Bidding Documents.

15.02 Bidder is furnished one copy of the Bidding Documents with one separate unbound copy of the Bid Forms and the Bid Bond. The Bidding Documents may be retained by Bidder. The unbound copy of the Bid Forms is to be completed and submitted with the Bid security along with any data required by the Bidding Documents to be attached to and made a condition of the Bid. Additional copies may be obtained from the Issuing Office.

15.03 A Bid shall be submitted 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 an opaque sealed envelope, plainly marked 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 the Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to place indicated in the Advertisement or Invitation to Bid. No relief will be provided for a mailed Bid not being received by the prescribed time. No Bid will be considered which is received after the time set for receiving Bids.

ARTICLE 16–MODIFICATION AND WITHDRAWAL OF BIDS

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time set for receiving Bids.

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 nonresponsive, read aloud publicly. An abstract of the amounts of the base bids and major alternatives and components, 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–AWARD OF CONTRACT

19.01 OWNER reserves without limitation the right to reject any or all Bids, to waive any and all informalities not involving price, time or changes in the work and to negotiate Contract terms with the Successful Bidder; and the right to accept or reject all incomplete, nonconforming, nonresponsive, unbalanced, obscure, or conditional Bids, or Bids which contain additions not called for, erasures, alterations, or irregularities of any kind, or which do not comply with the Instructions to Bidders. OWNER reserves the right to reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER. OWNER

further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be nonresponsible.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, OWNER will consider whether or not the Bids comply with the prescribed requirements, and such alternatives, unit prices, and other data as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bids, OWNER will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the work when such data is required to be submitted prior to the Notice of Award.

19.06.1 If a Contract is to be awarded, it will be awarded to the responsive and responsible Bidder with either the lowest computed total base bid or the computed total base bid plus any alternative(s) selected by OWNER whose evaluation indicates to OWNER that the award will be in the best interest of the Project. Bid from the successful Bidder for the computed total base bid plus any alternative(s) selected by OWNER may not necessarily be lower in price than the bid or bids for other alternative combinations.

19.06.2 Should OWNER wish to consider alternatives listed, Bidder may be required to provide additional information as listed in Article 6.05 of the General Conditions, prior to the Notice of Award. If an alternative is selected by OWNER, the awarded Contract price will include the selected alternative(s).

19.07 If a Contract is to be awarded, OWNER will give the successful Bidder a Notice of Award within 60 days after the time set for opening Bids.

ARTICLE 20—CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth OWNER's requirements as to performance and payment bonds and insurances. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by the required performance and payment bonds and insurances.

ARTICLE 21—SIGNING OF AGREEMENT

21.01 When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with all other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to ENGINEER with the required Bonds and insurances. Within 10 days after receipt of properly executed documents and Bonds and insurances which meet all requirements of the Contract Documents, ENGINEER will deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 22—RETAINAGE

22.01 Provisions concerning retainage are set forth in the Agreement.

ARTICLE 23—WAGE RATE DETERMINATION

23.01 A wage rate determination will be inserted as a part of the Bidding Documents and/or will be on file at the office of the OWNER. Bidders shall inspect the wage rate determination and shall incorporate its requirements into their Bid. See General Requirements for additional requirements.

23.02 See Section 01060 of the General Requirements for additional information.

ARTICLE 24—TAXES

24.01 The Bid shall include all taxes in effect at the time the Bid is submitted. No charge will be allowed for taxes from which OWNER is exempt. Bidders who are uncertain as to what items are subject to tax, or who require further explanation or clarification, are requested to contact the Illinois Department of Revenue. Refer to the Supplementary Conditions SC-6.10 for additional information.

ARTICLE 25—LAWS, ORDINANCES, AND REGULATIONS

25.01 Bidder must familiarize itself with all laws, ordinances, and regulations by federal, state, city, or other governmental agency, which by reason of being neglected or violated may affect the Work contemplated and must secure and pay the fee required for any permits which may be necessary unless such fees are otherwise indicated to be paid in the Bidding Documents.

END OF SECTION

SECTION 00400

BID

EXECUTIVE TANK REHABILITATION
CONTRACT 1-2014
VILLAGE OF WILLOWBROOK, ILLINOIS

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ARTICLE 1-BID RECIPIENT

1.01 Bids to be received until 10 A.M., local time, February 4, 2015.

1.02 This Bid is submitted to: Village of Willowbrook
7760 Quincy Street
Willowbrook, IL 60527

1.03 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 Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 85 days after the Bid opening or for such longer period of time that Bidder may agree to in writing upon request of OWNER.

2.02 Bidder will sign and deliver the required number of counterparts of the Agreement with the bonds, insurance certificates and other documents required by the Bidding Requirements within 15 days after the date of OWNER's Notice of Award.

ARTICLE 3-BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda (list addenda by addendum number and date), receipt of all which is hereby acknowledged:

Date:

Addendum Number:

_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site 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. Bidder is familiar with and is satisfied 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 contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures if any, at the Site (except Underground Facilities) which have been identified in SC-4.02, as containing reliable "technical data" and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the site that have been identified in SC-4.06 as containing reliable "technical data."

E. Bidder has considered the information known to Bidder; 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, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) 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 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 performance of the Work for which this Bid is submitted.

ARTICLE 4—FURTHER REPRESENTATIONS

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 noncompetitive 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 noncompetitive 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):

The following abbreviations may be used in this Bid:

CIP	-	Complete in Place	LF	-	Linear Foot
CY	-	Cubic Yard	LS	-	Lump Sum
DI	-	Ductile Iron	LT	-	Left
DIA	-	Diameter	MBF	-	Thousand Board Feet
EA	-	Each	MH	-	Manhole
EST	-	Estimate(d)	RCP	-	Reinforced Concrete Pipe
EXCL	-	Excluding	RT	-	Right
FT	-	Feet	SF	-	Square Foot
GAL	-	Gallon	STA	-	Station
HERCP	-	Horizontal Elliptical RCP	SY	-	Square Yard
HRS	-	Hours	T	-	Ton
IN	-	Inch	VLF	-	Vertical Linear Foot
INCL	-	Including	W/	-	With
LBS	-	Pounds	W/O	-	Without

BIDDERS SHOULD NOT ADD ANY CONDITIONS OR QUALIFYING STATEMENTS TO THIS BID OR THE BID MAY BE DECLARED IRREGULAR AS NOT BEING RESPONSIVE TO THE INSTRUCTIONS TO BIDDERS.

BID

EXECUTIVE TANK REHABILITATION
CONTRACT 1-2014
VILLAGE OF WILLOWBROOK, ILLINOIS

Contract award will be made based on the Computed Total Base Bid plus any Alternatives selected. The price for all Base Bid items shall be included in the Computed Total Base Bid. Alternative Bids will be added to or deducted from the Computed Total Base Bid, if they are accepted, prior to Contract award being made.

OWNER reserves the right to accept or reject any alternatives to the Computed Total Base Bid. Should OWNER wish to consider alternatives listed, Bidder may be required to provide additional information as listed in Article 6.05 of the General Conditions, prior to Notice of Award.

The following prices per item shall be for furnishing and installing the various items of material and work as specified and shown on the drawings. Bidder agrees to perform the Work as shown on the Drawings and described in the Specifications for the following listed prices. Bidder acknowledges that unit prices have been computed in accordance with Paragraph 11.03.B of the General Conditions. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

NOTE: A price must be bid for each item in the Bid, even though the estimated quantity is zero. Unbalanced or unreasonable unit prices may cause rejection of the Bid. All words and numbers shall be in ink.

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1.	Tank Exterior Full Surface Preparation, INCL Shroud	1	LS	\$	\$
2.	Tank Exterior Full Recoat	1	LS	\$	\$
3.	Tank Interior Wet Full Surface Preparation, INCL Cleaning of Sediment	1	LS	\$	\$
4.	Tank Interior Wet Full Recoat	1	LS	\$	\$
5.	Tank Interior Dry Spot Surface Preparation	1	LS	\$	\$
6.	Tank Interior Dry Spot Recoat	1	LS	\$	\$
7.	Remove, Store, Reinstall, and Start Up Cathodic Protection System	1	LS	\$	\$
8.	Full Surface Preparation and Recoat of Riser Piping	1	LS	\$	\$
9.	Furnish and Install Pipe Insulation and Aluminum Jacket on Riser Pipe	1	LS	\$	\$
10.	Seam Seal All Interior Wet Roof Plates W/Caulk	1	LS	\$	\$
11.	Remove Existing Tank Vent and Furnish and Install New 24-IN Flanged Manway and New Failsafe Vent	1	LS	\$	\$

Item No.	Description	Quantity	Unit	Unit Cost	Extension
12.	Seal Annular Space to Interior Wet Between Access Tube and Roof	1	LS	\$	\$
13.	Remove Curb on Interior Wet Man-Way and Replace W/New Steel Curb	1	LS	\$	\$
14.	Replace all Light Bulbs W/New	1	LS	\$	\$
15.	Regrade around Tank and Overflow Discharge to Drain	1	LS	\$	\$
16.	Relocate Communication Support Away From Interior Wet Manway to Allow Full Opening of Manway	1	LS	\$	\$
17.	Site Restoration	1	LS	\$	\$

COMPUTED TOTAL BASE BID CONTRACT 1-2014 (ITEMS 1 THROUGH 17)

_____ Dollars \$ _____
 (Words) (Numbers)

BID ALTERNATIVES

BID ALTERNATIVE NO. 1:

CONTRACTOR shall include in the cost of the Bid Alternative ALL work associated with providing the scope listed below.

The price of \$_____ shall be (deducted from) or (added to) (*strike one*) the Computed Total Bid if OWNER elects to have CONTRACTOR recoat the exterior of the tank with a three-coat exterior coating system with HydroFlon Finish coat, or equivalent, in lieu of Base Bid Four-Coat exterior coating system, as indicated in the Drawings and Specifications.

ARTICLE 6-TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete on or before October 31, 2015, and will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions on or before November 30, 2015.

Milestone 1 CONTRACTOR shall not commence construction until May 1, 2015.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times.

ARTICLE 7-ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security in the form of _____ in the
(Bond or Certified Check)
amount of _____ Dollars
(\$ _____) as required by the Instructions to Bidders.
- B. Bidder's Certification.
- C. Non-Collusion and Certification Statement.

ARTICLE 8-DEFINED TERMS

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

ARTICLE 9-COMMUNICATIONS

9.01 Communications concerning this Bid shall be addressed to the address of Bidder indicated below:

Name: _____

Street: _____

City, State, Zip Code: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

ARTICLE 10-BID SUBMITTAL

Submitted on _____

State Contractor License Number _____ (if applicable).

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner-attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature-attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____ (CORPORATE SEAL)

Attest _____
(Signature of Corporate Secretary)

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

Date of Qualification to do business in (State where the Project is located) is _____

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

Notary Public or Other Officer
Authorized to Administer Oaths.
My Commission expires: _____

A Limited Liability Company (Note: If member-managed, an authorized member must sign; if manager-managed, the authorized manager must sign. Attach evidence of authority to sign on behalf of LLC).

(Fill in complete name of LLC)

State of Formation: _____

By: _____
(Signature)

_____, [Member] [Manager]
(Print Name)

Business Address: _____

Telephone.: _____

Email: _____

Fax: _____

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____(SEAL)

By: _____
(Signature of first joint venture partner-attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

Second Joint Venturer Name: _____(SEAL)

By: _____
(Signature of second joint venture partner-attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

Phone No., Fax No., and postal and E-mail address for receipt of official communications:

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

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

Notary Public or Other Officer
Authorized to Administer Oaths.
My Commission expires: _____

END OF SECTION

SECTION 00430

10% BID BOND

BIDDER (Name and Address):

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

OWNER (Name and Address):

BID:

BID DUE DATE: _____

PROJECT (Brief Description including Location):

BOND:

BOND NUMBER: _____

DATE: (Not later than Bid Due Date): _____

PENAL SUM: _____

Surety and Bidder, intending to be legally bound hereby, subject to the terms hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

SURETY

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

BIDDER

Bidder's Name and Corporate Seal (Seal)

By: _____
Signature and Title

Attest: _____
Signature and Title

Above addresses are to be used for giving required notice.

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 penal sum is the extent of Surety's liability.
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 by 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 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 Bid due date.
7. Any suit or action under this Bond shall be commenced in the Circuit Court of DuPage County, Illinois.
8. Notice 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 prepaid, 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 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 the Bond conflicts with any applicable provision of 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.

END OF SECTION

BIDDER'S CERTIFICATION

I, _____ (Individual
having been duly sworn on oath), do depose and state that I presently reside at
_____ (Address), and
that I am the duly authorized principal, officer or agent of
_____ (Name of CONTRACTOR) and do
hereby certify to OWNER, its Commissioners, officers and employees that neither I nor
_____ (Name of CONTRACTOR) are barred
from bidding on the contract for which this bid is being submitted, as a result of violation of either
Section 33E-3 ("Bid-rigging") or Section 33E-4 ("Bid-rotating") of Article 33E of the Criminal Code
of 1961 of the State of Illinois approved July 28, 1961, as amended.

(Individually and on behalf of CONTRACTOR)

Sworn and subscribed to before me this
_____ day of _____

Notary Public or Other Officer
Authorized to Administer Oaths.
My Commission expires: _____

NON-COLLUSION AND CERTIFICATION STATEMENT

1. By submission of the Bid, each Bidder and, in the case of a joint Bid, each party to the joint Bid certifies as to his or her own organization, that in connection with the Bid:

a. The prices in the Bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to the prices with any other bidder or with any competitor;

b. Unless otherwise required by law, the prices quoted in the Bid have not knowingly been directly or indirectly disclosed to any other bidder or to any competitor prior to Bid opening; and

c. No attempt has been made or will be made by the Bidder to induce any other person or firm to submit or withhold a Bid for the purpose of restricting competition. Also, each Bidder shall submit a certification regarding compliance with Article 33 E-11 of the Illinois Criminal Code of 1961 [720 ILCS 5/33 E-11]; and

2. Each person signing the Bid shall certify that (check one):

- ☐ He/she is the person in the Bidder's organization responsible for the decision as to the prices being bid and that he/she has not participated, and will not participate, in any action contrary to 1.a. through 1.c.; or
- ☐ He/she is not the person in the Bidder's organization responsible for the decision as to the prices being bid but that he/she has been authorized to act as agent certifying that the persons determining the prices have not participated, and will not participate, in any action contrary to 1.a. through 1.c., and as their agent shall so certify. He/She shall also certify that he/she has not participated, and will not participate, in any action contrary to 1.a. through 1.c.

Signature of Authorized Representative

Date

Typed Name and Title of Authorized Representative

Sworn and subscribed to before me this
_____ day of _____

Notary Public or Other Officer
Authorized to Administer Oaths.
My Commission expires: _____

SECTION 00520

AGREEMENT

THIS AGREEMENT is by and between _____
(hereinafter called OWNER) and _____
(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants set forth herein, agree as follows:

Article 1. WORK

1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Article 2. THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Article 3. ENGINEER

3.01 The Project has been designed by Strand Associates, Inc.[®].

3.02 OWNER has retained Strand Associates, Inc.[®] ("ENGINEER") to act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents, except for resident project representative services. OWNER will assume these duties and responsibilities and the rights and authority thereto in accordance with the Contract Documents.

Article 4. CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Dates for Substantial Completion and Final Payment

A. The Work will be substantially complete on or before October 31, 2015, and will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions on or before November 30, 2015.

In addition to the required substantial and final completion times, there are milestones by which certain items of work must be completed. See General Requirements for milestone requirements.

Milestone 1 CONTRACTOR shall not commence construction until May 1, 2015.

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 penalty):

1. Substantial Completion: CONTRACTOR shall pay OWNER \$500 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. This amount is comprised of \$300 per day for engineering, construction administration services, construction observation services, and inspections and \$200 per day for administration, labor, expenses, and other costs that will be incurred by OWNER.

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 \$500 for each day that expires after such time until the Work is completed and ready for final payment. This amount is comprised of \$300 per day for engineering, construction administration services, construction observation services, and inspections and \$200 per day for administration, labor, expenses, and other costs that will be incurred by OWNER.

3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

Article 5. CONTRACT PRICE

5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds as follows:

A. For all Work, at the prices stated in CONTRACTOR's Bid, attached hereto as an exhibit. The awarded Contract Amount includes the Computed Total Base Bid plus Bid Alternatives _____.

B. All specific cash allowances are included in the Contract Price and have been computed in accordance with Paragraph 11.02 of the General Conditions.

Article 6. PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 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 as established at the preconstruction conference during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established in Paragraph 2.07.A of 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 in the General Requirements:

1. Prior to Substantial Completion, OWNER will retain an amount equal to 10% of each progress payment application until 50% of the Work has been completed. At 50% completion, further progress payment applications shall be paid in full to the CONTRACTOR and no additional amounts will be retained unless the ENGINEER certifies to the OWNER that the job is not proceeding satisfactorily. Amounts previously retained shall not be paid to the CONTRACTOR until substantial completion of the Work. At 50% completion of the Work, or any time thereafter when the character and progress of the Work is not satisfactory to OWNER on recommendation of ENGINEER, additional amounts may be retained, but in no event shall the total retainage be more than 10% of the value of the work completed.

2. Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 98% of the Work completed, less such amounts as ENGINEER shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 100% of ENGINEER's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Paragraph 14.07.

Article 7. HIERARCHY

7.01 In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

First:	WRITTEN AMENDMENTS
Second:	AGREEMENT
Third:	CHANGE ORDERS
Fourth:	ADDENDA
Fifth:	SUPPLEMENTARY CONDITIONS
Sixth:	GENERAL CONDITIONS
Seventh:	SPECIFICATIONS
Eighth:	DRAWINGS

Figure dimensions (numerical) on Drawings shall take precedence over dimensions measured utilizing a scale.

Article 8. CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

B. CONTRACTOR has visited the Site 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 federal, state, and local Laws and Regulations that may affect cost, progress and performance of the Work.

D. CONTRACTOR has carefully studied (1) all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in Paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Supplementary Conditions as provided in Paragraph 4.06 of the General Conditions.

E. CONTRACTOR has obtained and carefully studied (or accepts consequences of not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site that may affect the cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents and safety precautions and programs incident thereto.

F. CONTRACTOR does not consider that any 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 Documents.

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 correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

I. 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.

J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 9. CONTRACT DOCUMENTS

9.01 Contents

A. The Contract Documents consist of the following:

1. This Agreement (pages 00520-1 through 00520-____, inclusive);
2. Performance bond (pages to 00600-1 through 00600-3, inclusive);
3. Payment bond (pages 00600-4 through 00600-6, inclusive);
4. Other bonds
 - a. _____ (pages _____ to _____, inclusive);
5. General Conditions (pages 00700-1 through 00700-____, inclusive);
6. Supplementary Conditions (pages 00800-1 through 00800-____, inclusive);
7. Specifications as listed in the table of contents of the Project Manual;
8. Drawings-Sheets No. ____ through No. _____

inclusive incorporated herein by reference with each sheet bearing the following general title:

as well as drawings listed in the table of contents that are bound at the back of these specifications.

9. Addenda (_____).
10. Exhibits to this Agreement (enumerated as follows:)
 - a. CONTRACTOR's Bid (pages ____ to ____);

- b. Documentation submitted by CONTRACTOR prior to Notice of Award

(_____);

- c. (_____).

11. The following may be delivered or issued on or after the Effective Date of the Agreement:

- a. Notice to Proceed (pages {_____} to {_____}, inclusive);
- b. Work Change Directives (not attached to this Agreement);
- c. Change Order(s) (not attached to this Agreement).

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 Paragraph 3.04 of 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. 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, monies that may become due and monies that are 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 partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of 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 Liquidated Damages

A. Failure to perform and prosecute the work in a timely manner as provided by the Contract; CONTRACTOR shall be liable for payment of the sum of Five Hundred Dollars (\$500.00) per day. Notwithstanding the foregoing, CONTRACTOR shall not be liable for liquidated damages resulting from delays caused by OWNER, force majeure, or conditions outside the reasonable control of CONTRACTOR.

10.06 Nonwaiver

A. No provision of the Contract Documents will be deemed waived by reason of one party failing to enforce the provision on one or more occasions. Any such waiver must be in writing.

10.07 Integration

A. The parties' entire agreement is contained in the Contract Documents, and the provisions of the Contract Documents supersede all prior discussions or writings between the parties.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR, and ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

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

OWNER

Signature and Title (Seal)

ATTEST:

By:

Signature and Title

Address for Giving Notices:

Name:

Street:

City, State, Zip Code:

Phone:

Facsimile:

E-mail:

Designated Representative:

CONTRACTOR _____

Signature and Title (Seal)

ATTEST:

By: _____
Signature and Title

Address for Giving Notices:

Name: _____

Street: _____

City, State, Zip Code: _____

Phone: _____

Facsimile: _____

E-mail: _____

Designated Representative: _____

License No.: _____

(Where applicable)

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

SECTION 00550
NOTICE TO PROCEED

Dated _____

TO: _____
(CONTRACTOR)

ADDRESS: _____

PROJECT: _____

OWNER'S CONTRACT NO. _____

CONTRACT FOR _____

(Insert name of Contract as it appears in the Bidding Documents)

You are notified that the Contract Time under the above Contract will commence to run on _____, _____. On or before that date, you are to start performing your obligations under the Contract Documents.

Before you may start any work at the site, Paragraph 2.01.B of the General Conditions provides that you must deliver to OWNER (with copies to ENGINEER and other identified additional insureds) certificates of insurance, copies of endorsements, and other evidence of insurance which you are required to purchase and maintain in accordance with the Contract Documents.

Also before you may start any work at the site, you must _____

(Add Other Requirements)

(OWNER)

By: _____
(Authorized Signature)

(Title)

END OF SECTION

SECTION 00551

EROSION CONTROL CERTIFICATION

Dated _____

TO OWNER: _____

ADDRESS: _____

PROJECT: _____

OWNER'S CONTRACT NO. _____

CONTRACT FOR _____

I certify under penalty of law that I understand the terms and conditions of the General National Pollutant Discharge Elimination System (NPDES) Permit that authorizes the stormwater discharges associated with industrial activities from the construction site and as may be detailed in the Contract Documents.

I agree to indemnify and hold OWNER harmless from any claims, demands, suits, causes of action, settlements, fines, or judgments and the costs of litigation, including, but not limited to, reasonable attorneys fees and costs of investigation and arising from a condition, obligation, or requirement assumed or to be performed by CONTRACTOR for storm water pollution and erosion control.

Fines and other costs incurred against OWNER for CONTRACTOR's failure to provide the required erosion control practices will be paid by CONTRACTOR.

(CONTRACTOR)

By: _____
(Authorized Signature)

(Title)

END OF SECTION

SECTION 00600
PERFORMANCE BOND

DRAFT-Final

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

OWNER (Name and Address):

CONSTRUCTION CONTRACT

Effective Date of Agreement: _____

Amount: _____

Description (Name and Location): _____

BOND

Bond Number: _____

Date (Not earlier than Effective Date of Agreement of the Construction Contract): _____

Amount: _____

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 (Seal)

Surety's Name and Corporate Seal (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 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.

DRAFT Final

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.

SECTION 00600
PAYMENT BOND

DRAFT-Final

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

OWNER (Name and Address):

CONSTRUCTION CONTRACT

Effective Date of Agreement: _____

Amount: _____

Description (Name and Location): _____

BOND

Bond Number: _____

Date (Not earlier than Effective Date of Agreement of the Construction Contract): _____

Amount: _____

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

Contractor's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (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.

- DRAFT Final
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.

END OF SECTION

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

Associated General Contractors of America
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308
(703) 548-3118
www.agc.org

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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 and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. 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 which is evidence of the agreement between Owner and Contractor covering the Work.
 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. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given 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 under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *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.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *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.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *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 for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *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 at the Site.
44. *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.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *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 Subcontractor.
48. *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 those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *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, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F 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 Paragraph 9.09 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 14.04 or 14.05).

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. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

- 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. 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 Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *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 Agreement 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 Agreement. 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 Agreement, whichever date is earlier.

2.04 *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 the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), 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 Documents;
 - 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.

2.06 *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 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, 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 instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *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 2.05.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 component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, 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. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, 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, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement 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, 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 Contract Documents. 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 Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, 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) any standard, specification, manual, or code, or (c) 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 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
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 Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); 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 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier 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
2. 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.

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.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

**ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS;
HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS****4.01 *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. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- 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 the Work is to be performed 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.

4.02 *Subsurface and Physical Conditions***A. *Reports and Drawings:*** The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "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.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed 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 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; 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 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition 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 meet any one or more of the categories described in Paragraph 4.03.A; and
 - 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 Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final 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
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and

contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for 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 such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, 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 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the

consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *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.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "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 any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) 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 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. 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, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. 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. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. 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: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- H. 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 a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, 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 Documents. 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 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds 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 each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, 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 requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also

meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which 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:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained;

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. 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; and
 6. 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.
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and 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;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, 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.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full 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:
1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 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, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, 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.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors,

members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies 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 of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their 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 Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (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 as trustee 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 utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.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, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, 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. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's

interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *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. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- 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.

6.02 *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. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *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.

- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, 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.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 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 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "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 specification or description 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 or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. *"Or-Equal" Items:* If in Engineer's sole discretion 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, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, 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; and
- 3) it has a proven record of performance and availability of responsive service.

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.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. 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:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) 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

- c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. 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.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be

required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. 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 any right of Owner or Engineer to reject defective Work.
- C. 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. 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 moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. 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.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner,

Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (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 such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *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.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, 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 opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *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 knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear 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. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *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.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. 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 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 by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other 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 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 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 property to stresses or pressures that will endanger it.

6.12 *Record Documents*

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

6.13 *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, 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 owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

- 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 6.13.A.2 or 6.13.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 (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 for protection of the Work 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 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *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.

6.15 *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.

6.16 *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.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- 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 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. 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 6.17.D.

B. 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. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

- a. reviewed and coordinated each 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 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 and approval of that 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 both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

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 (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval 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 6.17.C.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's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

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.

6.18 *Continuing the Work*

- A.** Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *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 representation of 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 or the issuance of a notice of acceptability by Engineer;
 - 6. any inspection, test, or approval by others; or
 - 7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. 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 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 6.20.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 6.20.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.

6.21 *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 law.
- 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, Shop Drawings 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 6.21, 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 6.17.D.1.

- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
1. written notice thereof will be given to Contractor prior to starting any such other work; and
 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. 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. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, 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.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 3. the extent of such authority and responsibilities will be provided.

- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

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

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *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.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *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.

8.12 *Compliance with Safety Program*

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 pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *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 Documents.

9.02 *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 9.09. 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.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. 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.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with 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, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. 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 Paragraph 10.05.

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

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents 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 14.07.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 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *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 by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *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 as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. 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; and
 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *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.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data

shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs 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 11.01.B, 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, 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 11.01.
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 5.06.D), 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 telegrams, long distance telephone calls, telephone 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 Contractor is required by the Contract Documents to purchase and maintain.

B. *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 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which 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 Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work 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 or when a Claim for an 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 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, 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.

11.02 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:*
 1. Contractor agrees that:
 - a. 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
 - b. 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. *Contingency Allowance:*
 1. 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.

11.03 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. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- 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. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. 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; and
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that Contractor 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 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for 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, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* 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 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.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 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - 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 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or

neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, 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 Price or the Contract Times, or both. 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.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is 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 described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests 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.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- 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 and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. 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.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

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

- C. If it is found that the uncovered Work is defective, 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 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 Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. 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, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *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, 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.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. 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 removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *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 land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
 2. correct such defective Work; or
 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 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. 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) will be paid by Contractor.
- 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 13.07, 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 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. 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) 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 pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *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 in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, 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, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, 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 (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) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. 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 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A 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.

14.02 *Progress Payments*

A. *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 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.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, 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 9.07, 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 Documents; 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 moneys 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 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. 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;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action 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, when Contractor remedies the reasons for such action.
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 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

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

14.04 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 (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- 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.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before

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

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. 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 tentative list.

14.05 *Partial Utilization*

- 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. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and 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 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the 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 14.04 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 5.10 regarding property insurance.

14.06 *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 is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *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, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) 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.

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 Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. 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 14.09. 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. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**15.01 *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 notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will 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 established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. 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
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.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 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) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed 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.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *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;
 - 3. 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) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) 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 15.03.

- 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 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 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 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *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 to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any 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.

17.03 *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 Documents. 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.

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

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

17.06 *Headings*

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

SECTION 00800

SUPPLEMENTARY CONDITIONS

A. These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract EJCDC C-700 (2007 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

B. The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below which are applicable to both the singular and plural thereof.

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SC-1.01.A Defined Terms

Insert in the first sentence after the phrase "printed with initial capital letters" the following phrase:

"or with all capital letters"

SC-1.01.A.8 Bidding Requirements

Delete Paragraph 1.01.A.8 in its entirety and insert the following in its place:

8. Bidding Requirements—The Advertisement to Bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

SC-1.01.A.17 Drawings

The following Drawings are part of the Contract Documents:

Drawings titled "Executive Tank Rehabilitation, Contract 1-2014, Village of Willowbrook," Sheets No. 1 through No. 3, prepared by Strand Associates, Inc.[®], and Drawings listed in the table of contents that are bound at the back of these Specifications

Electronic files were provided for the convenience of CONTRACTOR. The data on which CONTRACTOR may rely is limited to the paper copy.

SC-1.01.A.51 Work Change Directive

Amend the phrase "and signed by OWNER" in the first sentence of Paragraph 1.01.A.51 to read as follows:

"and signed by OWNER and CONTRACTOR."

SC-1.01.A.52 Request for Information

Add the following new paragraph immediately after Paragraph 1.01.A.51:

52. Request for Information:

Written request submitted by CONTRACTOR to ENGINEER on a form supplied by ENGINEER requesting clarification, interpretation, or additional information pertaining to Contract Documents.

SC-2.01 Delivery of Bonds and Evidence of Insurance

Delete Paragraph 2.01.A in its entirety and insert the following in its place:

A. When CONTRACTOR delivers the executed counterparts of the Agreement to OWNER, CONTRACTOR shall also deliver to OWNER such bonds, insurance certificates, insurance endorsements, and other documents as CONTRACTOR may be required to furnish.

Delete Paragraph 2.01.B in its entirety and insert the following in its place:

B. Evidence of Insurance: Before any Work at the Site is started, CONTRACTOR shall deliver to OWNER with copies to each additional insured or loss payee identified in the Supplementary Conditions OWNER-approved copies of certificates of insurance, copies of endorsements, and other evidence of insurance which either of them or any additional insured or loss payee may reasonably request, which CONTRACTOR is required to purchase and maintain in accordance with Paragraphs 5.04 and 5.06.

SC-2.02 Copies of Documents

Delete the first sentence of Paragraph 2.02.A in its entirety and insert the following in its place:

OWNER shall furnish to CONTRACTOR up to three printed or hard copies of the Drawings and Project Manual.

SC-2.03 Commencement of Contract Times; Notice to Proceed

In the last sentence of Paragraph 2.03.A, change "sixtieth day" to "eighty-fifth day."

SC-2.05 Before Starting Construction

Add the following subparagraph to Paragraph 2.05.A:

4. a proposed listing of subcontractors and major material and equipment suppliers. The list shall include any proposed substitutions in accordance with Paragraph 6.05.

SC-2.05, 2.06, 2.07 Schedules and Conferences

The Bid will be considered the Schedule of Values of the Work required by the General Conditions.

SC-2.07 Initial Acceptance of Schedules

Add the following language to the end of Paragraph 2.07.A.2:

The schedule for shop drawings shall show all submittals complete before 25% of completion of the Work and the schedule for maintenance manuals shall show all submittals complete before 50% of completion of the Work.

SC-3.03 Reporting Discrepancies

Add the following new paragraphs immediately after Paragraph 3.03.A.3:

4. CONTRACTOR shall report apparent discrepancies to ENGINEER using a Request for Information form on a form supplied by ENGINEER. The Request for Information form shall:

- a. be submitted by CONTRACTOR only;
- b. be legible and complete;
- c. not be used for the purposes of only confirming or verifying issues; and,
- d. be prioritized by CONTRACTOR in the event that multiple Requests for Information are outstanding.

Requests for Information that are not in conformance with the requirements above shall be returned to CONTRACTOR without response.

5. CONTRACTOR shall not be relieved of its responsibility to coordinate the Work to prevent adverse impacts to CONTRACTOR's Project Schedule while submitting Requests for Information.

6. If CONTRACTOR believes the Scope of Work included in the Request for Information has a cost and/or time impact, CONTRACTOR should submit a claim in accordance with Article 12 of these General Conditions.

7. If CONTRACTOR proceeds with work when CONTRACTOR had actual knowledge or should have known that a conflict, error, ambiguity, or discrepancy existed as indicated above, correction of work constructed without such notification to ENGINEER shall be at CONTRACTOR's expense, (except in an emergency as authorized by Paragraph 6.16.A).

SC-4.02 Subsurface and Physical Conditions

Add the following new paragraph(s) immediately after Paragraph 4.02.B:

C. The following reports and drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) are known to OWNER:

1. Report dated August 2013, prepared by Strand Associates, Inc.[®], of Joliet, Illinois, titled: Executive Elevated Tank Observation Report, for the Village of Willowbrook, Illinois, consisting of 11 pages.

2. Report dated February 2001, prepared by Robert S. Wozniak, of Oak Brook, Illinois, titled: 500 MG Waterspheroid Access Tube Dual Mounted Antenna System, Willowbrook, Illinois, consisting of 39 pages.

3. Drawings dated November 4, 1974, prepared by Chicago Bridge and Iron Company, of Birmingham, Alabama, titled: 500 MG Waterspheroid 115'-0 BCL, for Willowbrook, Illinois, consisting of six sheets numbered 1 to F2, inclusive.

None of the contents of such reports or drawings include technical data on which CONTRACTOR may rely.

D. The reports and drawings identified above are not part of the Contract Documents, but the "technical data" contained therein upon which CONTRACTOR may rely, as expressly identified and established above, are incorporated in the Contract Documents by reference. CONTRACTOR is not entitled to rely upon any other information and data known to or identified by OWNER or ENGINEER.

E. Copies of drawings identified in SC-4.02.C that are not included with the Bidding Documents may be examined at Strand Associates, Inc.[®], 1170 South Houbolt Road, Joliet, IL 60431 during regular business hours.

SC-4.04 Underground Facilities

CONTRACTOR is referred to the General Requirements for requirements for keeping records of Underground Facilities and allowing facility owners to inspect.

SC-4.05 Reference Points

CONTRACTOR is referred to the General Requirements for additional requirements for laying out the work.

SC-4.06.A Hazardous Environmental Conditions

Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions are known to OWNER.

B. Not Used.

SC-5.01 Performance and Payment Bonds

Add the following new paragraphs immediately after Paragraph 5.01.C:

D. The forms of the performance and payment Bonds attached hereto shall be used for the Contract. Note instructions thereon as to the form applicable. Each form contemplates one corporate surety only. In case co-sureties or individual sureties will be furnished, proper forms therefore shall be obtained. Besides the stipulations of Paragraphs 5.01 through 5.03, the surety on the Bonds shall provide a certificate indicating surety is licensed to underwrite contracts in the jurisdiction of the project location which shall be attached to the Bonds.

E. Every Bond must run to OWNER.

F. If the principal is an individual, his/her full name and residence shall be inserted in the body thereof, and he/she shall sign the Bonds with his/her usual signature on the line opposite the scroll seal. If the principals are partners, their individual names shall appear in the body of the Bonds, with the recital that they are partners comprising a firm, naming it, and all the members of the firm shall execute the Bonds as individuals.

G. The signature of a witness shall appear in the appropriate places, attesting the signatures of each individual party to the Bonds.

H. If the principal is a corporation, the name of the state in which incorporated shall be inserted in the appropriate place in the body of the Bonds, and said instrument shall be executed and attested under the corporate seal as indicated on the form. If the corporation has no seal, the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name. This also applies to execution by surety.

I. The date of the Bonds must not be prior to the date of the Contract for which given.

J. The bond shall be signed by an individual authorized to sign on behalf of the surety and a power of attorney, authorizing the execution of the Bonds by an attorney-in-fact, or agent of the surety, shall be attached to one executed counterpart of the Bonds.

SC-5.02 Licensed Sureties and Insurers

Add the following new paragraph immediately after Paragraph 5.02.A:

B. Bonds shall be placed with surety with a Best's rating of no less than A-.

C. Insurance is to be placed with surety with insurance companies with a Best's rating of no less than A-.

SC-5.03 Certificates of Insurance

Add the following immediately after Paragraph 5.03.F:

G. CONTRACTOR shall name OWNER as an additional insured on all the Certificates of Insurance that CONTRACTOR is required to maintain.

SC-5.04 CONTRACTOR's Liability Insurance

Add the following new paragraphs immediately after Paragraph 5.04.B:

C. The limits of liability for the insurance required by Paragraph 5.04 shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations. The types of insurance and the limits of liability indicated are the minimum required. Neither OWNER nor ENGINEER warrant the adequacy of the types of insurance or the limits of liability required. Any policy exclusions shall be indicated on the insurance certificate. CONTRACTOR shall provide verification of all coverages with or on the insurance certificate.

1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2:

a.	State:	Statutory
b.	Applicable Federal (e.g., Longshoreman's):	Statutory
c.	Employer's Liability:	
	Bodily Injury by Accident:	
	Each Accident	\$ 1,000,000
	Bodily Injury by Disease:	
	Each Employee	\$ 1,000,000
	Policy Limit	\$ 1,000,000

2. CONTRACTOR's General Liability under Paragraphs 5.04.A.3 through A.6 which shall be written on a commercial general liability form and which shall include completed

operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of CONTRACTOR:

a. Policy Limits:

- | | | |
|----|--|--------------|
| 1) | Each Occurrence Limit
(Bodily Injury and Property Damage) | \$ 1,000,000 |
| 2) | Medical Expense Limit
(Any One Person) | \$ 10,000 |
| 3) | Personal and Advertising Injury Limit
(Per Person/Organization) | \$ 1,000,000 |
| 4) | General Aggregate Limit
(other than P-CO) | \$ 2,000,000 |
| 5) | Products-Completed Operations
Aggregate Limit | \$ 1,000,000 |

b. Policy shall include as a minimum the following coverages:

- 1) Broad Form Property Damage Coverage.
- 2) An elimination of the exclusions with respect to property under the care, custody, or control of CONTRACTOR. In lieu of elimination of the exclusion, CONTRACTOR may provide Builder's Risk or Installation Floater coverage for property under the care, custody, or control of CONTRACTOR.
- 3) Explosion, Collapse, and Underground coverages where applicable under Property Damage Liability Insurance.
- 4) Contractual Liability Coverage.
- 5) Independent Contractor Coverage.
- 6) General Aggregate Limits specified above shall apply separately to this project by attachment of:

"Amendment of Limits of Insurance-Designated Projects or Premises" Endorsement (ISO Form No. CG 25010798) or "Designated Construction Project(s) General Aggregate Limit" Endorsement (ISO Form CG 25030397) or equivalent endorsement coverage.

3. Commercial Automobile Liability under Paragraph 5.04.A.6:

a. Policy Limits:

Bodily Injury:

- | | |
|---------------|--------------|
| Each Person | \$ 1,000,000 |
| Each Accident | \$ 1,000,000 |

Property Damage:

Each Accident \$ 1,000,000

c. Policy shall include contractual liability coverage and coverage on all owned, nonowned and hired vehicles.

4. Umbrella Coverage:

a. Umbrella policy (pay on behalf form) with limits of 10,000,000 for bodily injury, personal injury and property damage on a combined basis shall be provided with the stated underlying limits of Paragraphs 5.04.C.1, 5.04.C.2, and 5.04.C.3.

b. Policy shall include OWNER, ENGINEER, and any others required by Paragraph 5.04.B.1 as additional insureds.

D. Regardless whether or not an Owners' and Contractors' Protective (OCP) policy or Project Management Protective Liability (PMPL) policy is furnished, insurance certificates for commercial general, automobile, umbrella, and builders risk shall specifically indicate by name the additional insureds which are to include OWNER and ENGINEER as well as other persons or entities so identified. Certificates shall be Acord 25-S or equivalent.

E. Additional Insured Endorsements/OCP policy/PMPL policy

1. CONTRACTOR shall purchase and maintain liability insurance, as described above, specifically naming as additional insureds OWNER and ENGINEER as well as other individuals or entities so identified (see the Supplementary Conditions), using Additional Insurance Endorsement Form CG 20 26 07 04, CG 81 11 05 06, CG 20 10 07 04, or equivalent form. General liability policies shall also be endorsed with Form CG 20 37 07 04 to include the "products-completed operations coverage."

2. As an alternative to providing Form CG 20 26 07 04, CG 81 11 05 06, or CG 20 10 07 04, CONTRACTOR may furnish to OWNER an OCP policy or a PMPL policy with OWNER as the named insured and ENGINEER as either an additional insured or a named insured. OCP policy or PMPL policy shall provide for bodily injury and property damage coverage equal to the sum of: the general aggregate limit for commercial general liability plus the amount specified for the umbrella coverage. OCP policy or PMPL policy shall provide coverage arising out of:

i. operations performed by CONTRACTOR at the project location.

ii. acts or omissions in connection with the general supervision, inspection and/or coordination of such operations.

If an OCP or PMPL policy is provided, CONTRACTOR shall provide originals of the Final OCP or PMPL to all insured and additional insured parties.

F. Endorsements, OCP policy, PMPL policy, or General Liability policy shall not exclude supervisory or inspection services.

CONTRACTOR shall also provide an Additional Insured Endorsement for the automobile policy. Endorsement form shall be CA 20 48, or equal.

G. The specimen Insurance Certificate bound at the end of this section has been prepared as a guide to assist CONTRACTOR and CONTRACTOR's Insurance Agent when preparing the

insurance submittal. This specimen certificate is included as a representation of what acceptable documents will look like. Specific project information must be included when preparing the actual document.

SC-5.04.B Additional Insureds Coverage

5.04.B.1 Additional Insureds

Delete from the first sentence of Paragraph 5.04.B.1, the phrase "(subject to any customary exclusion regarding professional liability)."

Revise the last phrase in Paragraph 5.04.B.1 to read "and the insurance afforded to these additional insureds shall provide primary and noncontributory coverage for all claims covered thereby;"

5.04.B.4 Insurance Policies

Delete the phrase "materially changed" and insert the following in its place:

"materially changed with respect to coverage on the Project."

5.04.B.6 Products and Completed Operations Insurance

Amend in Paragraph 5.04.B.6 the phrase "completed operations coverage" to read "products and completed operations coverage."

SC-5.06.A Property Insurance

Delete Paragraph 5.06.A in its entirety and insert the following in its place:

A. CONTRACTOR shall purchase and maintain property insurance upon the Work at the Site in the amount of full replacement cost thereof. Insurance shall be completed value form.

1. This insurance shall:

a. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, and any other individuals or entities identified herein, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or loss payee (Insurance certificates shall specifically indicate by name the loss payees which are to include OWNER and ENGINEER as well as other individuals or entities so identified.);

b. be written on a Builder's Risk "Cause of Loss-Special Form" or its equivalent that shall at least include insurance for physical loss and 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, extended coverage, theft, vandalism, and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (including that caused by flood or hydrostatic pressure), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

c. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

d. cover the total value of materials and equipment supplied under the Contract from the time CONTRACTOR takes possession of them until they are installed and tested by CONTRACTOR and the project is accepted as complete by OWNER under an endorsement to this policy or in the form of Installation Floater Insurance of the "all risk" type;

e. allow for partial utilization of the Work by OWNER;

f. include testing and startup; and

g. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

2. CONTRACTOR shall be responsible for any deductible or self-insured retention.

3. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this Paragraph SC-5.06.A shall comply with the requirements of Paragraph 5.06.C.

SC-5.06.B Equipment Breakdown and Additional Property Insurance

Delete Paragraph 5.06.B in its entirety and insert the following in its place:

B. OWNER shall purchase and maintain equipment breakdown insurance or additional property insurance which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, and other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured. OWNER's insurance coverage will take effect after materials and equipment are installed and tested by CONTRACTOR and the project is accepted as complete by OWNER. CONTRACTOR shall purchase Builder's Risk, Installation Floater, or Equipment Breakdown Insurance or a combination thereof to protect CONTRACTOR's interest and interests of others as listed above in the materials and equipment until the Project is accepted as complete by OWNER. CONTRACTOR's coverage shall ensure against at least the following perils: accidents, mechanical breakdown, electric arcing, and problems arising during testing because of defects.

SC-5.06.D Deductible Provisions

Delete the first sentence of Paragraph 5.06.D and insert the following in its place:

CONTRACTOR shall pay all deductible provisions of insurances. The maximum deductible shall be \$5,000.

SC-5.06.E Policies of Insurance

Delete Paragraph 5.06.E in its entirety.

SC-5.07 Waiver of Rights

Add the following after the word "fire" in Paragraph 5.07.B.2:

(excluding loss resulting from the negligent or willful and wanton act(s) of CONTRACTOR),

SC-6.02 and 6.03 Labor, Working Hours, Services, Materials, and Equipment

See the General Requirements for special requirements concerning site conditions and usage. Village Ordinance limits working hours to Monday through Friday from 7 A.M. until 7:30 P.M. and Saturday from 7 A.M. until 5:30 P.M. No work will be allowed on Sunday or holidays **unless** written authorization has been provided by OWNER.

SC-6.03.B Materials and Equipment Warranty

Add the following to the end of Paragraph 6.03.B:

Suppliers shall be deemed to impliedly warrant that their products and all component materials incorporated into them are suitable and fit for the intended use of such products and shall be free from defect in material, workmanship or design, such warranty to run to the benefit of OWNER and ENGINEER. The foregoing applies whether the products or their component materials are specified in the Contract Documents or are of Supplier's design.

SC-6.06 Concerning Subcontractors, Suppliers and Others

Add the following new paragraph immediately after Paragraph 6.06.G:

H. OWNER or ENGINEER 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 a particular Subcontractor or Supplier.

SC-6.08 Permits

Delete last sentence of Paragraph 6.08.A and add the following in its place:

See General Requirements and technical specification sections for utility charge provisions.

Add Paragraph 6.08.B as follows:

B. See General Requirements for additional permit information.

SC-6.09 Laws and Regulations

Add the following new paragraph immediately after Paragraph 6.09.C:

D. CONTRACTOR shall comply with Employment of Illinois Workers on Public Works Act 30 ILCS 570, which requires contractors to use Illinois laborers on all public works construction and improvement projects during a period of excessive unemployment. Excessive unemployment is defined as any month immediately following two consecutive calendar months that the Illinois unemployment rate exceeds 5%, CONTRACTOR agrees to employ a work force that is comprised of at least 90% Illinois laborers. An "Illinois laborer" is defined as any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident.

SC-6.10 Taxes

Add the following language at the end of Paragraph 6.10.A:

No charge will be allowed for taxes from which OWNER is exempt. OWNER is not liable for the Illinois Retailer's Occupation Tax, the Service occupation Tax or the Service use Tax. OWNER is exempt from

Federal Excise and Transportation Tax. Refer to Illinois Administrative Code 64-216, Section 130.2075 for details.

Add the following new paragraph immediately after Paragraph 6.10.A:

B. OWNER is exempt from payment of sales and compensating use taxes of the State of Illinois, the Village of Willowbrook, and the County of DuPage 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.

2. OWNER's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by CONTRACTOR, or to supplies or materials not incorporated into the Work.

SC-6.12 Record Documents

In Paragraph 6.12.A. delete last sentence and insert the following:

Upon completion of the Work, these record documents, samples, and shop drawings shall be delivered by CONTRACTOR to OWNER.

SC-6.14 Competent Person

Add the following new paragraph at the end of Paragraph 6.14.A:

B. CONTRACTOR shall keep at the Site at all times during the progress of the Work a competent person to comply with OSHA trenching and excavation requirements. The competent person shall be one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions that are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

SC-6.17 Shop Drawings

Add the following new paragraphs immediately after Paragraph 6.17.E:

F. CONTRACTOR shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. ENGINEER will record ENGINEER's time for reviewing subsequent submittals of Shop Drawings, samples or other items requiring approval and CONTRACTOR shall reimburse OWNER for ENGINEER's charges for such time.

G. In the event that CONTRACTOR requests a substitution for a previously approved item, CONTRACTOR shall reimburse OWNER for ENGINEER's charges for its review time unless the need for such change is beyond the control of CONTRACTOR.

SC-6.20 Indemnification

Add the following to the end of Paragraph 6.20.A:

In addition, CONTRACTOR shall indemnify, hold harmless, and pay for the defense of OWNER and ENGINEER from and against claims, losses, or damages in regard to any act or failure to act by

OWNER or ENGINEER in connection with general supervision, inspection and/or coordination of CONTRACTOR's operations.

CONTRACTOR shall, at its own expense, appear, defend, and pay all fees of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith; and, if any judgments shall be rendered against any individual or entity indemnified hereunder in any such action, CONTRACTOR shall, at its own expense, satisfy and discharge same. CONTRACTOR expressly understands and agrees that any Letter of Credit or insurance protection required by the Contract, or otherwise provided by CONTRACTOR, shall in no way limit the responsibility to indemnify, keep and, save harmless, and defend any individual or entity indemnified hereunder as herein provided.

Delete Paragraph 6.20.C.1 and 6.20.C.2. Insert new Paragraphs 6.20.C.1 and D:

1. the preparation of Drawings, Specifications, or Property Surveys.

D. For any matter for which OWNER and ENGINEER are indemnified under Paragraph 6.20.A, CONTRACTOR shall pay for OWNER's and ENGINEER's reasonable defense, 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 or awards until OWNER or ENGINEER are found negligent. If OWNER or ENGINEER are found negligent, OWNER or ENGINEER shall reimburse CONTRACTOR for the prorata extent of OWNER's or ENGINEER's negligence for the cost of OWNER's or ENGINEER's reasonable defense.

SC-6.21 Delegation of Professional Design Services

Add the following immediately after Paragraph 6.21.E:

F. The design professional providing the design calculations and design drawings shall be licensed in the State of the Project.

G. The design calculation and design drawings are not shop drawings, but shall be submitted to ENGINEER separately along with the required shop drawings for the system, material, or equipment specified. These calculations will be forwarded to OWNER for their records.

SC-8.13 Responsibilities During Construction

Add the following new paragraph immediately after Paragraph 8.12.A:

A. OWNER will assume the duties and responsibilities of the Resident Project Representative as defined in Article 9.

SC-9 ENGINEER's Status During Construction

Strand Associates, Inc.® provided design services for the Project and will assume all duties and responsibilities of ENGINEER in Article 9 with the exception of Paragraph 9.03.

SC-9.03 Resident Project Representative

OWNER will assume the duties and responsibilities of the resident project representative on the project.

The duties and responsibilities of the resident project representative include the following:

1. Review schedules as required in Paragraph 2.05.A and amendment thereto.
2. Attend conferences and meetings with CONTRACTOR.
3. Serve as liaison between ENGINEER and CONTRACTOR and help ENGINEER serve as liaison between OWNER and CONTRACTOR.
4. Conduct on-site observation of the work.
5. Observe tests, equipment, and system startups.
6. Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed. Consider, evaluate, and report to ENGINEER, CONTRACTOR's requests for modification.
7. Maintain orderly records, keep a daily log (when on a part-time basis, keep log for days visiting site), and furnish periodic reports to ENGINEER of the progress of the Work.
8. Before project completion, prepare final list of items to be completed or corrected and make recommendations to ENGINEER concerning acceptance of the Work.

The resident project representatives shall not:

1. Authorize any deviation from the Contract Documents or substitutions of materials or equipment.
2. Exceed limitations of ENGINEER's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of CONTRACTOR, Subcontractor, Suppliers or CONTRACTOR's superintendent.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction.
5. Advise on, issue directions regarding, or assume control over safety precautions and programs in connection with the Work.
6. Accept shop drawing or sample submittals from anyone other than CONTRACTOR.
7. Authorize OWNER to occupy the Project in whole or in part.
8. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by ENGINEER.

SC-10.03 Execution of Change Orders

Add the following language at the end of Paragraph 10.03.A.4:

Change orders that increase the Contract price from one dollar (\$1.00) to ten thousand dollars (\$10,000.00) shall be executed by OWNER's Village Administrator. Change orders increasing the

Contract price in an amount in excess of ten thousand dollars (\$10,000.00) shall be executed by OWNER's Village Administrator after authorization and approval by OWNER's Board of Trustees.

SC-10.04 Notification to Surety

Add the following language at the end of Paragraph 10.04.A:

CONTRACTOR shall be responsible for notifying the surety of any assignment, modification or change of the Contract, change in the work covered thereby, or extension of time for the completion of the project.

Failure to provide notice to the surety of any such change shall not exonerate the surety from its obligations under the bond.

SC-11.01 Cost of Work

Delete Paragraph 11.01.A.1 in its entirety.

Delete Paragraphs 11.01.A.5.a, 11.01.A.5.d, 11.01.A.5.g, and 11.01.a.5.h in their entirety.

SC-11.03 Unit Price Work

Delete Paragraph 11.03.D in its entirety and insert the following in its place:

D. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

1. If the Bid price of a particular item of Unit Price Work amounts to 15% or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by CONTRACTOR differs by more than 25% from the estimated quantity of such item indicated in the Agreement; and

2. If there is no corresponding adjustment with respect to any other item of Work; and

3. If CONTRACTOR believes that it has incurred additional expense as a result thereof; or

4. If OWNER believes that the quantity variation entitles it to an adjustment in the unit price,

either OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

SC-12.01 Change of Contract Price

Clarification of Paragraph B.2: The overhead and profit allowance for lump sum work shall be in accordance with Paragraph 12.01.C.2 unless OWNER and CONTRACTOR agree that these allowances are not appropriate for the Work involved.

SC-13.02 Access To Work

Add the following paragraph after Paragraph 13.02.A of the General Conditions:

B. Representatives of the Illinois Environmental Agency (IEPA), or any of their duly authorized representatives will have full access to and the right to examine any pertinent books, documents, papers and records of CONTRACTOR involving transactions related to the project.

SC-13.03.A Tests and Inspections

Add the following to the beginning of Paragraph 13.03.A:

All Work is subject to testing to indicate compliance with Contract Document requirements. Duplicate copies of test results of all tests required shall be submitted to ENGINEER. Tests and inspection of work may be conducted by OWNER or an independent laboratory employed by OWNER. Tests may also be performed in the field by ENGINEER as a basis for acceptance of the Work.

Add the following to the end of Paragraph 13.03.A:

Samples required for testing shall be furnished by CONTRACTOR at no cost to OWNER. In the event that completed Work does not conform to specification requirements during the initial test, the Work shall be corrected and retested for conformance. The entire cost of retesting completed Work shall be borne by CONTRACTOR. This shall include the extra cost for inspection to OWNER which will be deducted from the final amount due CONTRACTOR.

SC-13.07.A Correction Period

Delete in Paragraph 13.07.A the phrase "If within one year after the date of Substantial Completion" and insert in its place the following:

"If within one year of the date of final payment or from the date established by ENGINEER that the Work or portion thereof began operating or was used in a continuous, satisfactory manner for its intended purpose, whichever is earlier,"

SC-14.02.A Applications for Progress Payment

Add the following to Paragraph 14.02.A.1:

Each application for project payments shall include Contractor's certified payroll.

Add the following paragraph after Paragraph 14.02.A.3:

4. CONTRACTOR shall submit with each pay request CONTRACTOR's partial waiver of lien for the full amount of the requested payment. Beginning with the second pay request, and with each succeeding pay request, CONTRACTOR shall submit partial waivers of lien for each Subcontractor and Supplier showing that the amount paid to date to each is at least equivalent to the total value of Subcontractor's or Supplier's work, less retainage, included on the previous pay request. CONTRACTOR shall submit with each pay request a signed Waiver of Lien Log clearly documenting the following:

- a. The names of all Subcontractors/Suppliers on the project.
- b. Contract amounts for each Subcontractor/Supplier.
- c. Amount paid to date to each Subcontractor/Supplier.

- d. Lien waivers provided with current pay application for the current month's payments. OWNER will not accept trailing waivers.
 - e. Amount to be paid to each Subcontractor/Supplier included in the pending pay request.
 - f. Remaining balance for each Subcontractor/Supplier.
5. CONTRACTOR shall submit one original and one copy on 8-1/2 by 11 paper of each lien waiver submitted.
6. CONTRACTOR shall submit five copies of each pay request for approval.
7. No advanced payment for shop drawing preparation will be made. Shop drawing costs will be paid when equipment and materials are delivered and suitably stored on the site.
8. All stored equipment and materials for which payment is requested shall have two copies of invoices included with the pay request. Equipment shall be identified thoroughly on the invoices, including serial numbers.
9. Payment for the stored equipment and material which are on the site shall not exceed the invoiced amount for each item, less the Contract retainage. The overhead and profit for the stored items shall not be invoiced until the item is installed.
10. Payment for off-site storage is normally reserved for sensitive or very large pieces of equipment that in ENGINEER's opinion would not be practical to have stored on the site. Payment for off-site stored items shall be limited to 75% of the invoiced value of the item, less Contract retainage. CONTRACTOR shall reimburse OWNER the cost of inspecting off-site stored items. When off-site storage is approved, CONTRACTOR shall provide Insurance Certificates and Document of Ownership to OWNER.

SC-14.02.C Payment Becomes Due

Delete Paragraph 14.02.C.1 in its entirety, and replace with the following:

After presentation of the application for payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due and owing to CONTRACTOR in accordance with the provisions of the Local Government Prompt Payment Act (50 ILCS 505/1, *et seq.*)

SC-14.05 Partial Utilization

Add the following new paragraph immediately after Paragraph 14.05.A.3, which is to read as follows:

4. OWNER may at any time request CONTRACTOR in writing to permit OWNER to take over operation of any part of the Work although it is not substantially complete. A copy of such request will be sent to ENGINEER, and within a reasonable time thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to OWNER and ENGINEER that such part of the Work is not ready for separate operation by OWNER, ENGINEER will finalize the list of items to be completed or corrected and will deliver such lists to OWNER and CONTRACTOR together with a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to

security, operation, safety, maintenance, utilities, insurance, warranties, and guarantees for that part of the Work which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they shall have otherwise agreed in writing and so informed ENGINEER). During such operation and prior to Substantial Completion of such part of the Work, OWNER shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

Paragraph 14.05.A.4 shall be renumbered to 14.05.A.5.

SC-14.07 Final Application for Payment

Insert the following before the last sentence of Paragraph 14.07.A.3. of the General Conditions:

CONTRACTOR's request for final payment shall also include CONTRACTOR's final waiver of lien which shall be for the full amount of Contract, including any change orders thereto, and final waivers of lien from all subcontractors and suppliers for which final waivers of lien have not previously been submitted.

SC-15.02 OWNER May Terminate for Cause

Delete in the first sentence of Paragraph 15.02.A.1, the word "persistent."

Delete in Paragraph 15.02.A.3, the word "repeated."

Add after the word "disregard" in Paragraph 15.02.A.3, "on more than one occasion."

Replace Paragraph 15.02.B.3 with the following:

3. complete the Work as OWNER may deem expedient at the expense of CONTRACTOR and surety;

Add the following new paragraphs immediately after Paragraph 15.02.B.3:

4. apply the amounts retained from partial payments to the completion of the Work;
and
5. authorize the surety to complete the steps in Paragraphs 15.02.B.1 through 4 above.

SC-15.03 OWNER May Terminate for Convenience

Add the following paragraph after Paragraph 15.03.B:

C. CONTRACTOR shall require similar provisions contained in Paragraph 15.03 in each of its subcontracts to protect CONTRACTOR from claims by subcontractors arising from OWNER's termination for convenience, or to minimize claims by such subcontractors. The remedy provided to CONTRACTOR under this Paragraph 15.03 shall be CONTRACTOR's sole remedy in the event of termination for convenience by OWNER.

SC-16 Dispute Resolution

Delete Paragraph 16.01 and replace it with the following:

SC-16.01 Methods and Procedures

A. Subject to the provisions of Paragraph 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

END OF SECTION



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Insurance Agency	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED Contractor	E-MAIL ADDRESS:	
	PRODUCER CUSTOMER ID #:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A: Insurance Company	
	INSURER B:	
INSURER C:		
INSURER D:		
INSURER E:		
INSURER F:		

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE \$ 1,000,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$ 10,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
							PRODUCTS - COMP/OP AGG \$ 1,000,000
							\$
	AUTOMOBILE LIABILITY						
	<input checked="" type="checkbox"/> ANY AUTO						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per person) \$ 1,000,000
	<input type="checkbox"/> SCHEDULED AUTOS						BODILY INJURY (Per accident) \$ 1,000,000
	<input type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$ 1,000,000
	<input type="checkbox"/> NON-OWNED AUTOS						\$
							\$
							\$
	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR						EACH OCCURRENCE \$
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$ 10,000,000
							\$
	DEDUCTIBLE						\$
	RETENTION \$						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT \$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
	Installation Floater or Builders Risk						

See SC-5.06

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Executive Tank Rehabilitation, Contract 1-2014, Village of Willowbrook, Illinois

The Village of Willowbrook and Strand Associates, Inc. are additional insured with respect to General Liability, Automobile Liability, and Excess/Umbrella Liability. The Village of Willowbrook and Strand Associates, Inc. are loss payees with respect to Installation Floater or Builder's Risk policies. In addition, see attached Additional Insured Endorsements for the General Liability and Automobile policies.

CERTIFICATE HOLDER**CANCELLATION**

Strand Associates, Inc.
1170 South Houbolt Road
Joliet, IL 60431

(Provide separate certificate to each party.)

Village of Willowbrook
7760 Quincy Street
Willowbrook, IL 60527

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

SPECIFICATIONS

SECTION 01010

SUMMARY OF WORK

PART 1-GENERAL

1.01 DIVISION ONE

- A. The requirements of Division 1 apply to all sections of the Contract(s).

1.02 PROJECT SCOPE

- A. CONTRACTOR shall provide all items, articles, materials, operations or methods mentioned or scheduled on the Drawings or herein specified: including all labor, supervision, equipment, incidentals, taxes and permits necessary to complete the Work as described within the Contract Documents. CONTRACTOR shall install all items provided by OWNER as mentioned or scheduled on the Drawings or herein specified.

1.03 CONTRACT DOCUMENTS-INTENT AND USE

A. Intent of Documents:

1. Singular notations and specifications shall be considered plural where application is reasonably inferred.
2. Mention or indication of extent of work under any division or Specification section is done only for convenience of CONTRACTOR and shall not be construed as describing all work required under that division or section.
3. Some individual sections may contain a list of related sections. The list of related sections in individual sections is provided for the convenience of CONTRACTOR and is not necessarily all-inclusive. CONTRACTOR may not rely upon this listing for determination of scope of work. Other sections of the Specifications, not referenced in individual sections shall apply as required for proper performance of the Work.
4. Command type sentences may be used in the Contract Documents. These sentences refer to and are directed to CONTRACTOR.
5. Symbols for various elements and systems are shown on the Drawings. Should there be any doubt regarding the meaning or intent of the symbols used, a written interpretation shall be obtained from ENGINEER.

B. Use of Documents:

1. CONTRACTOR shall examine all Specifications and Drawings for the Work, including those that may pertain to Work CONTRACTOR does not normally perform with its own forces.
2. CONTRACTOR shall use all of the Project Drawings and Specifications:
 - a. For a complete understanding of the Project.
 - b. To determine the type of construction and systems required.
 - c. For coordination with other contractors.
 - d. To determine what other work may be involved in various parts or phases.
 - e. To anticipate and notify others when work by others will be required.
 - f. And all other relevant matters related to the project.
3. CONTRACTOR is also bound by all requirements of the Contract Documents which are applicable to, pertain to, or affect its Work, as may be shown or inferred by the entire set of Project Drawings and Specifications.

1.04 CONSTRUCTION REQUIREMENTS

- A. In general, the following contract completion Milestones shall be followed. See Agreement for specific dates: Substantial Completion: CONTRACTOR shall by that date, have the Executive Tank rehabilitation substantially completed and ready to be placed in service.
- B. General Information and Requirements:
 - 1. CONTRACTOR shall provide all temporary piping, bypass pumping, temporary electrical, temporary construction, and disinfection required to meet the requirements of this section and to complete the Work.
 - 2. Operation of the water facilities will be the responsibility of OWNER. CONTRACTOR shall cooperate with the water utility operation staff at all times, and removal of any operating units from service shall be coordinated by CONTRACTOR with OWNER and ENGINEER. Prior to removing or placing any unit process in or out of service, CONTRACTOR shall request in writing authorization from OWNER. CONTRACTOR shall attach to all requests for placing unit in service, the laboratory results for bacteriological test showing that safe samples were obtained.
 - 3. CONTRACTOR shall coordinate taking units out of service and placing units back in service with OWNER.
 - 4. CONTRACTOR shall not commence work on any deductive alternative(s) until requesting and obtaining OWNER's written authorization.
 - 5. CONTRACTOR shall maintain site roadways open at all times to meet OWNER's requirements. Access by roadway to other facilities shall be maintained, except as approved by OWNER. CONTRACTOR shall be responsible for maintaining roadways in drivable conditions.
- C. Construction Sequence:
 - 1. CONTRACTOR shall not commence construction until May 1, 2015.
 - 2. CONTRACTOR shall submit a construction schedule accounting for the May 1, 2015 construction commencement date.

1.05 CONTRACTOR USE OF SITE

- A. General:
 - 1. The "area of the site" referred to in these specifications shall be as shown on the Drawings. If the "area of the site" is not shown, OWNER's property lines, the project right-of-way or the easements obtained for the project shall be considered the "area of the site."
 - 2. Construction activities shall be confined within the "area of the site" limits.
 - 3. From the start of work to completion CONTRACTOR is responsible for the care of the site and the premises which are affected by operations of Work of this Contract.
 - 4. Except for permanent site improvements provided under the Contract, CONTRACTOR shall restore property disturbed during the Work, to the conditions which previously existed.
 - 5. Work in occupied spaces shall be restricted to specified Work and essential activities, such as making necessary connections and extending services or constructing temporary access ways. Such work shall be scheduled in advance with OWNER.
- B. Parking and Deliveries:
 - 1. CONTRACTOR is responsible for control of traffic by vehicles and persons within the limits of its operations.

2. Parking for employees, subcontractors, and agents of CONTRACTOR shall be in areas subject to approval of OWNER.
3. Access to the site for delivery of construction material or equipment shall be subject to approval of OWNER.

1.06 EXISTING SERVICES, STRUCTURES AND UNDERGROUND FACILITIES

- A. Interruption of existing services and systems including heating, ventilating, air conditioning, water, sanitary, lighting and power, signal and security will not be permitted, unless specifically indicated otherwise. Provide temporary facilities to maintain services.
- B. If deemed necessary by OWNER, such work shall be accomplished after OWNER's normal office hours.
- C. Work shall not commence until all labor, materials and equipment are available so Work can continue without interruption or delay.
- D. Should uncharted or incorrectly charted piping or other utilities be encountered during installation, notify OWNER and consult with utility owner immediately.
- E. Cooperate with OWNER and utility companies in keeping respective services and facilities in operation and repair any damaged utilities as required by utility owner.
- F. CONTRACTOR shall not interrupt existing utilities serving facilities occupied and used by OWNER or others, except when permitted in writing by OWNER.
- G. Any accidental interruption of services shall be repaired immediately, including provision of temporary facilities until permanent repairs can be made.
- H. Prior to any excavation, demolition, or drilling on site, CONTRACTOR shall contact owners of the underground facilities in and near the construction area of the intent to excavate, demolish, or drill. As part of this notification requirement, CONTRACTOR shall contact "JULIE" (811 or 1-800-892-0123). CONTRACTOR shall be aware that not all owners participate in "JULIE." A call to this agency shall not absolve CONTRACTOR of the requirements for contacting owners of all underground facilities in and near the construction area. CONTRACTOR shall give reasonable advance notice to "JULIE" and other owners for the notification which shall not be less than the minimum advance notification required.
- I. CONTRACTOR shall proceed with caution in the excavation and preparation of the Site so the exact location of structures and Underground Facilities can be determined. CONTRACTOR shall include in the Contract Price any costs for temporary or permanent relocations of such structures and Underground Facilities required to complete the Work unless specifically indicated otherwise in the Specifications.
- J. CONTRACTOR shall keep an accurate and complete record of all such structures and Underground Facilities encountered and shall provide OWNER a copy of this record. The record shall include a description of the item encountered, opinion as to conditions, and adequate measurements and depths so that the item can be located in the future.
- K. CONTRACTOR shall inspect all structures and Underground Facilities for condition and soundness. Unsound conditions shall be reported to the structure or facility owner immediately after exposing. CONTRACTOR shall not proceed with the work until the

structure or facility owner has been notified. OWNER shall then be given time to inspect and correct, if required, the structure or Underground Facility. CONTRACTOR may make claim under the provisions of Articles 11 and 12 of the General Conditions should CONTRACTOR feel a price or time adjustment is justified.

- L. Any additional costs incurred because of failure of CONTRACTOR to report the condition of any and all existing structure or Underground Facility encountered shall be paid for by CONTRACTOR.
- M. Whenever ENGINEER feels it is necessary to explore and excavate to determine the location of existing structures and Underground Facilities, CONTRACTOR shall make explorations and excavations for such purposes. If CONTRACTOR is required to perform additional work in making the explorations and excavations, extra compensation will be allowed as provided for in the General Conditions.

1.07 PROTECTION OF WORK AND IMPROVEMENTS

- A. CONTRACTOR shall protect the property of OWNER, existing improvements, and the Work installed by CONTRACTOR and others from abuse, damage, dust, debris, and other objectionable materials resulting from construction activities.
- B. CONTRACTOR shall provide suitable covers, partitions, or other dust and fume containment devices to suit construction operations.
- C. CONTRACTOR shall keep property, existing improvements and the Work, including structures, mains, fittings and accessories free from dirt and foreign matter at all times.
- D. CONTRACTOR shall provide temporary plugging of openings, holes and pipe ends that are existing or that CONTRACTOR has installed.
- E. Property, improvements and Work damaged by CONTRACTOR shall be repaired or replaced by CONTRACTOR to the satisfaction of OWNER.

1.08 AVAILABILITY OF LANDS

- A. Easements were not obtained for this Project. CONTRACTOR shall confine its operations, equipment and storage areas to the lands and rights-of-way in which the Project is to be located. CONTRACTOR may enter into written agreements with property owners for use of other lands during construction. Copies of such agreements shall be provided to OWNER.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01019

CONTRACT CONSIDERATIONS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Measurement and Payment-Unit Prices.

1.02 MEASUREMENT AND PAYMENT-UNIT PRICES

- A. ENGINEER will take measurement and compute quantities accordingly. CONTRACTOR shall assist in the taking of measurements.
- B. Incidental Items of Work: Any items of Work shown on the Drawings or called for in the Specifications, but not included in the Bid Form, shall be considered incidental items of Work. The cost of incidental items of Work shall be included in the prices bid for adjacent Work.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01039

COORDINATION, FIELD ENGINEERING, AND MEETINGS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Coordination.
 - 2. Field engineering.
 - 3. Progress meetings.
 - 4. Preinstallation meetings.

1.02 COORDINATION

- A. CONTRACTOR shall coordinate scheduling, submittals, and work of the various sections of the work to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. CONTRACTOR shall verify utility requirements and characteristics of operating equipment are compatible with building utilities and coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. CONTRACTOR shall coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on the Drawings and shall follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, except as otherwise indicated, CONTRACTOR shall conceal pipes, ducts, and wiring within the construction and coordinate locations of fixtures and outlets with finish elements.
- E. CONTRACTOR shall coordinate completion and clean up of Work of separate sections in preparation for substantial completion and for portions of Work designated for OWNER's occupancy.
- F. After OWNER occupancy of premises, CONTRACTOR shall coordinate access to Site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of OWNER's activities.

1.03 FIELD ENGINEERING

- A. CONTRACTOR shall locate and protect property stakes, legal survey monuments, benchmarks, and survey control and reference points. CONTRACTOR shall pay for replacement of disturbed property stakes and legal survey monuments by a Registered Land Surveyor acceptable to OWNER and for replacement of benchmarks and survey control and reference points provided by ENGINEER.
- B. CONTRACTOR shall provide field engineering services as required to establish elevations, lines, and levels, utilizing recognized engineering survey practices.

- C. CONTRACTOR shall furnish all required plummets and graduated poles to check all Work.
- D. If stakes and boards have to be reset because of negligence of CONTRACTOR, CONTRACTOR shall bear the cost of such work.
- E. If laser beam is used, CONTRACTOR shall check its Work against intermediate grade stakes provided between manholes. Prior to initial use of the laser, CONTRACTOR shall set up laser on ground surface and check line and gradient controls. Lasers not functioning properly shall be immediately removed.
- F. If existing property stakes, not within the limits of the trench, are removed or damaged by CONTRACTOR, CONTRACTOR shall bear the cost of replacement. Replacement shall be made by a legal survey performed by a licensed Land Surveyor hired by OWNER. Cost for survey shall be deducted from the Contract Price.
- G. CONTRACTOR shall be responsible for all lines, elevations, and measurements of buildings, structures, piping, utilities, and other work executed by CONTRACTOR under the Contract. CONTRACTOR must exercise proper precaution to verify figures before laying out the Work, and will be held responsible for any error resulting from its failure to exercise such precaution.
- H. See Specifications for additional requirements concerning layout of the Work.

1.04 PROGRESS MEETINGS

- A. Progress meetings will be held throughout progress of the Work at intervals agreed to by OWNER, ENGINEER, and CONTRACTOR. Interval will generally be monthly.
- B. CONTRACTOR's project manager, job superintendent, major subcontractors and suppliers shall attend as appropriate to address agenda topics for each meeting. CONTRACTOR's representatives shall have authority to bind CONTRACTOR to decisions at the meetings.
- C. The project schedule shall be updated monthly and shall be reviewed at each progress meeting. CONTRACTOR shall provide the following information in written form at each meeting.
 - 1. Construction progress, including:
 - a. Activities completed this reporting period.
 - b. Activities in progress this reporting period.
 - c. Activities scheduled to commence this reporting period.
 - 2. Description of problem areas.
 - 3. Current and anticipated delays.
 - a. Cause of the delay.
 - b. Corrective action and schedule adjustments to correct the delay.
 - c. Impact of the delay on other activities, on milestones, and on completion dates.
 - 4. Changes in construction sequence.
- D. ENGINEER will prepare and distribute minutes to all attending parties.

1.05 PREINSTALLATION MEETING

- A. When required in individual specification sections, CONTRACTOR shall convene a preinstallation meeting at Work Site prior to commencing Work of the section.
- B. CONTRACTOR shall require attendance of parties directly affecting, or affected by, work of the specific section.
- C. CONTRACTOR shall notify ENGINEER seven days in advance of meeting date.
- D. CONTRACTOR shall prepare agenda and preside at meeting:
 - 1. Review conditions of installation, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. CONTRACTOR shall record minutes and distribute copies within two days after meeting to participants, with two copies to ENGINEER, participants, and those affected by decisions made.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01045

CUTTING, PATCHING, AND ALTERATIONS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: CONTRACTOR shall be responsible for all cutting, fitting, patching, and other alterations required to complete the Work as specified herein or to:
1. Make its several parts fit together properly.
 2. Uncover portions of the Work to install improperly sequenced Work.
 3. Remove and replace defective Work.
 4. Remove and replace Work not conforming to requirements of the Contract Documents.
 5. Remove samples of installed Work as specified for testing.
 6. Provide penetrations of surfaces for installation of piping and electrical conduit.
 7. Rehabilitate or renovate existing spaces.

1.02 REFERENCES

- A. ANSI A10 Safety Requirements for Construction and Demolition.

1.03 QUALITY ASSURANCE

- A. CONTRACTOR shall perform all cutting, patching, and alterations in strict accordance with pertinent requirements of these Specifications.
- B. Except as modified by governing codes, CONTRACTOR shall comply with the applicable provision and recommendations of ANSI A10.

1.04 SUBMITTALS

- A. CONTRACTOR shall submit a written request to OWNER well in advance of executing any cutting or alteration which affects the following:
1. Work of OWNER or any separate contractor.
 2. Structural value or integrity of any element of the Project.
 3. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 4. Efficiency, operational life, maintenance, or safety of operational elements.
 5. Visual qualities of sight-exposed elements.
- B. The request shall include:
1. Description of affected work.
 2. The necessity for cutting, patching, or alteration.
 3. Effect on work of OWNER or any separate contractor, or on the structural or weather-proof integrity of the Project.
 4. Description of proposed work to include:
 - a. Scope of cutting, patching, or alteration.
 - b. Trades who will execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.

5. Alternatives to cutting and patching.
 6. Written permission of any separate contractor whose work will be affected.
- C. Submit written notice to OWNER designating the date and the time the Work will be uncovered or executed.

1.05 SCHEDULING AND COORDINATION

- A. All work under this section shall be coordinated with OWNER's work forces and those of other contractors and shall be accomplished at times acceptable to OWNER.
- B. Before starting any work relating to existing utilities (electrical, sewer, water, heat, gas, fire lines, etc.) that will temporarily discontinue or disrupt service to the existing building, notify ENGINEER and OWNER 72 hours in advance and obtain OWNER's approval before proceeding with this phase of the work. Temporary facilities, if required, shall be in place prior to disruption of service.

PART 2-PRODUCTS

2.01 NEW MATERIALS

- A. For replacement of work removed, CONTRACTOR shall use materials which comply with the pertinent sections of these Specifications.
- B. All new materials for patching and extending work shall match existing products and work.
- C. CONTRACTOR shall determine type and quality of existing products by inspection and any necessary testing, and workmanship by use of existing as the standard.

2.02 SALVAGEABLE MATERIAL

- A. Materials or items designated to be reinstalled or to become the property of OWNER shall be as specified or as shown on the Drawings.
- B. CONTRACTOR shall remove such items with care under the supervision of the trade responsible for reinstallation.
- C. CONTRACTOR shall store these materials (off-site if necessary) and protect from damage until they are incorporated into the new work.
- D. Items which are not to be reinstalled but are to become the property of OWNER shall be removed by CONTRACTOR with care, cleaned, and stored in a location at the Site to be approved by OWNER.
- E. Materials or items damaged in its removal shall be replaced by CONTRACTOR with similar new material at no additional cost to OWNER.
- F. Where existing equipment or fixtures are indicated to be reused, CONTRACTOR shall repair such equipment and refinish as specified elsewhere.

2.03 UNSALVAGEABLE MATERIALS

- A. Materials or items demolished and not designated to become the property of OWNER or not designated to be reinstalled shall become the property of CONTRACTOR and shall be removed from the site and legally and properly disposed of by CONTRACTOR.
- B. Materials shall be removed by CONTRACTOR in a manner that will avoid damage to materials or equipment to remain.

PART 3-EXECUTION

3.01 INSPECTION

- A. CONTRACTOR shall inspect existing conditions including elements subject to movement or damage during cutting, patching, and other alterations.
- B. After uncovering the work, CONTRACTOR shall inspect conditions affecting installation of new products or performance of new work.
- C. CONTRACTOR shall report unsatisfactory or questionable conditions to ENGINEER in writing.
- D. CONTRACTOR shall not proceed with work until unsatisfactory or questionable conditions are resolved.
- E. Beginning of cutting, patching, and alterations work means acceptance of existing conditions by CONTRACTOR.

3.02 PREPARATION AND PROTECTION

- A. CONTRACTOR shall provide temporary bracing, shoring, needling, and support of the structure during alterations work as necessary to prevent collapse, settling, or deflection and to protect persons and property from injury or damage.
- B. Temporary supports must adequately carry all existing and imposed load.
- C. CONTRACTOR shall provide and maintain temporary protection of surface finishes, equipment, and adjacent work designated to remain where demolition, removal, and new work is being done, connections are being made, materials are being handled, or equipment is being removed.
- D. CONTRACTOR shall provide temporary partitions or barriers to contain all dust, dirt and debris from entering into finished areas or areas where OWNER is operating, storing, or manufacturing products.
- E. CONTRACTOR shall provide adequate fire protection in accordance with local Fire Department requirements.
- F. CONTRACTOR shall provide waterproofing, weather protection, heat, and other facilities for that portion of the work which may be exposed by cutting and patching, demolition, or other alterations.

- G. CONTRACTOR shall cut, move, or remove items as necessary for access to alterations and renovations work and replace and restore at completion of work.
- H. CONTRACTOR shall prepare surfaces and remove surface finishes to provide for proper installation of new work and new finishes.
- I. CONTRACTOR shall be responsible for any damage to the existing structure or its contents directly or indirectly by its crews or those of its subcontractors.

3.03 PERFORMANCE

- A. CONTRACTOR shall accomplish all work of cutting, removal, demolition, patching or other alterations using only persons skilled in the appropriate trade.
- B. CONTRACTOR shall execute the work in a careful and orderly manner, with the least possible disturbance to the public and to the occupants of the building.
- C. CONTRACTOR shall execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- D. CONTRACTOR shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- E. CONTRACTOR shall fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- F. CONTRACTOR shall thoroughly clean and prepare all surfaces to receive new finish or covering to completely remove all dirt, dust, grease, oil, paint, loose materials, and soil.
- G. CONTRACTOR shall refinish entire surface as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

3.04 DEMOLITION, CUTTING, AND REMOVAL

- A. Cutting and removal of construction shall be performed by CONTRACTOR so as not to cut or remove more than is necessary and so as not to damage adjacent work.
- B. CONTRACTOR shall cut out embedded anchorages and attachment items as required to properly provide for patching and repair of the respective finishes.
- C. CONTRACTOR shall not cut structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio.
- D. CONTRACTOR shall not cut operational elements and safety components in a manner resulting in decreased performance, shortened useful life, or increased maintenance.
- E. CONTRACTOR shall not cut work exposed to view (exterior or interior) in a manner resulting in noticeable reduction of visual qualities as determined by OWNER.

- F. Construction that is to remain which is loosened, cracked, or otherwise damaged or defaced as a result of careless cutting or demolition and is unsuitable for use intended shall be removed and replaced at no additional cost to OWNER.
- G. CONTRACTOR shall clean demolished areas and remove debris, waste, and rubbish from the building at the conclusion of each day's work.
- H. CONTRACTOR shall not let piled waste material endanger the structure.

3.05 PATCHING, EXTENDING, AND MATCHING

- A. Patching work shall conform to the standards of the Specifications where applicable and where not specified, work shall conform to the highest standards of the applicable trade.
- B. CONTRACTOR shall patch construction to match adjacent work unless noted otherwise.
- C. Patching or restoration shall be carried to natural breaks (e.g., corners) wherever possible.
- D. CONTRACTOR shall provide adequate support to substrate for patching finishes.
- E. At locations in existing areas where partitions are removed, CONTRACTOR shall patch floors, walls, and ceiling with finish material to match adjacent surfaces.
- F. Transitions:
 - 1. Where new work abuts or finishes flush with existing work, CONTRACTOR shall make the transition as smooth as possible.
 - 2. Patched work shall match adjacent work in texture and appearance so as to make the patch or transition invisible to the eye at a distance of 3 feet.
 - 3. Where masonry, tile, plaster, metal or other finished surface is cut in such a way that a smooth transition is not possible, CONTRACTOR shall terminate the existing surface in a neat fashion along a straight line at a natural line of division and provide trim appropriate to the finished surface.
 - 4. Where two or more spaces are indicated to become one space, CONTRACTOR shall rework floors and ceilings so that horizontal planes are without breaks, steps, or bulkheads, unless shown otherwise.
 - 5. In case of extreme level changes (3 inches or more) review condition with ENGINEER prior to making transition.
 - 6. CONTRACTOR shall restore existing work that is damaged during patching operations to a condition equal to its construction at the time of the start of work.

END OF SECTION

SECTION 01060

REGULATORY REQUIREMENTS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. OSHA Requirements.
 - 2. 35 Ill. Adm. Code 1100.
 - 3. Roadway Limits.
 - 4. Permits.
 - 5. Wage Rates.

1.02 OSHA REQUIREMENTS

- A. All work including site safety, equipment, materials, and fabricated items provided under the Contract shall comply with the provisions of the "Occupational Safety and Health Act."

1.03 35 ILL. ADM. CODE 1100

- A. CONTRACTOR shall comply with 35 Ill. Adm. Code 1100 when disposing of clean construction or demolition debris (CCDD) or uncontaminated soil at a CCDD or uncontaminated soil fill operation.

1.04 ROADWAY LIMITS

- A. CONTRACTOR shall comply with roadway weight restrictions including seasonal weight restrictions.

1.05 PERMITS

- A. No permits were obtained by OWNER for this Project. CONTRACTOR shall obtain required permits. Where the requirements of any permit are more restrictive than the Drawings or the Specifications, the permit requirements shall govern.
- B. A building permit will be required from OWNER. However, OWNER will waive fees associated with the permit.
- C. Any permits required for dewatering operations shall be obtained and paid for by CONTRACTOR.

1.06 WAGE RATES

- A. CONTRACTOR and any subcontractor shall pay all laborers, workers, and mechanics performing work under the Contract not less than the prevailing wage rates adopted by OWNER or determined by the court on review and filed with the Secretary of State in Springfield. A copy of the Schedule of Prevailing Wage Rates is attached hereto.
- B. CONTRACTOR shall keep or cause to be kept a record of employees and wages paid as required by the Prevailing Wage Act (820 ILCS 130/1-12). CONTRACTOR shall also require each subcontractor employed on the project to keep these same records. In

accordance with Illinois Public Act 94-0515, CONTRACTOR shall submit certified payroll records on a monthly basis to OWNER, along with a statement affirming that such records are true and accurate, that the wages paid to each worker are not less than the required prevailing rate and that CONTRACTOR is aware that filing records he or she knows to be false is a Class B misdemeanor.

- C. The certified payroll records shall include for every worker employed on the project the name, address, telephone number, social security number, job classification, hourly wages paid in each pay period, number of hours worked each day, and starting and ending time of work each day.
- D. 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, 30 ILCS 570, as two consecutive months of unemployment exceeding 5%, CONTRACTOR agrees to employ a work force that is comprised of at least 90% Illinois laborers. An "Illinois laborer" is defined as any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident.
- E. See Wage Rate Forms bound at the end of Division 1.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01090

REFERENCE STANDARDS AND DEFINITIONS

PART 1-GENERAL

1.01 SUMMARY

A. Work Included:

1. Reference Standards:

- a. Throughout the Contract Documents, reference is made to codes and standards which establish qualities and types of workmanship and materials, and which establish methods for workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics.
- b. Where materials or workmanship are required by these Contract Documents to meet or exceed the specifically named code or standard, it is CONTRACTOR's responsibility to provide materials and workmanship which meet or exceed that specifically named code or standard.
- c. It is also CONTRACTOR's responsibility, when so required by the Contract Documents, to deliver to ENGINEER all required proof that the material or workmanship, or both, meet or exceed the requirements of the specifically named code or standard.

2. Definitions:

- a. A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including the Drawings which must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon.
- b. Certain terms used in the Contract Documents are defined generally in this section to supplement definitions of the Agreement, General Conditions, Supplementary Conditions, and other general contract documents.
- c. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the Work.

- B. Related Work Described Elsewhere: The specific naming of codes or standards occurs on the Drawings and in other sections of these Specifications.

1.02 QUALITY ASSURANCE

A. Familiarity with Pertinent Codes and Standards:

1. It is CONTRACTOR's responsibility to verify the requirements of the specifically named codes and standards and to verify that the items procured for use in this Work meet or exceed the specified requirements.
2. When required by individual sections of these specifications, CONTRACTOR shall obtain a copy of each pertinent code or standard and maintain the copies at the job site during submittals, planning, and progress of the Work until Substantial Completion of the Work is attained.

B. Overlapping or Conflicting Requirements:

1. Where compliance with two or more industry standards or sets of requirements are specified, and the overlapping of those standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement (which is generally recognized to be also most costly) is intended and will be enforced, unless

more detailed language written directly into Contract Documents clearly indicates that a less stringent requirement is acceptable.

2. Refer all uncertainties to ENGINEER for decision before proceeding.

1.03 REFERENCE STANDARDS

- A. Applicable standards of the construction industry are made a part of the Contract Documents by reference as if copied directly into the Contract Documents, or as if published copies were bound herewith. See Article 3.02 of the General Conditions for additional provisions regarding references.
- B. Standards referenced directly in the Contract Documents or by governing regulation, have precedence over nonreferenced standards which are recognized in industry for applicability to the Work.
- C. Nonreference standards are hereby defined to have no particular applicability to the work except as a general measurement of whether the Work complies with standards recognized in the construction industry.
- D. Reference standards and codes listed in these specifications may include, but are not necessarily limited to, standards or codes published by the following agencies and organizations:

1. AA Aluminum Association
1525 Wilson Boulevard, Arlington, VA 22209
2. AAMA American Architectural Manufacturer's Association
1827 Walden Office Square Suite 550, Schaumburg, IL 60173-4268
3. AASHTO American Association of State Highway & Transportation Officials
444 North Capitol Street NW Suite 249, Washington, DC 20001
4. ACI American Concrete Institute
38800 Country Club Drive, Farmington Hills, MI 48331-3439
5. AI Asphalt Institute
2696 Research Park Drive, Lexington, KY 40511-8480
6. AISC American Institute of Steel Construction
One East Wacker Drive Suite 700, Chicago, IL 60601-1802
7. AISI American Iron and Steel Institute
25 Massachusetts Avenue NW Suite 800, Washington, DC 20001
8. ANSI American National Standards Institute
25 West 43rd Street, New York, NY 10036
9. APA American Plywood Association
7011 South 19th, Tacoma, WA 98466-5333

10. API American Petroleum Institute
1220 L Street NW, Washington, DC 20005-4070
11. ARI Air-Conditioning & Refrigeration Institute
4100 North Fairfax Drive Suite 200, Arlington, VA 22203
12. ASHRAE American Society of Heating, Refrigerating, and Air Conditioning Engineers
1791 Tullie Circle NE, Atlanta, GA 30329
13. ASME American Society of Mechanical Engineers
Two Park Avenue, New York, NY 10016-5990
14. ASSE American Society of Sanitary Engineering
901 Canterbury Suite A, Westlake, OH 44145
15. ASTM ASTM International
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959
16. AWI Architectural Woodwork Institute
46179 Westlake Drive Suite 120, Potomac Falls, VA 20165-5874
17. AWPA American Wood Protection Association
P.O. Box 361784, Birmingham, AL 35236-1784
18. AWS American Welding Society
8669 Doral Boulevard Suite 130, Doral, FL 33166
19. AWWA American Water Works Association
6666 West Quincy Avenue, Denver, CO 80235
20. BHMA Builder's Hardware Manufacturers Association
355 Lexington Avenue 15th floor, New York, NY 10017
21. BIA Brick Industry Association
1850 Centennial Park Drive Suite 301, Reston, VA 20191
22. CRSI Concrete Reinforcing Steel Institute
9333 North Plum Grove Road, Schaumburg, IL 60173
23. EJMA Expansion Joint Manufacturers Association
25 North Broadway, Tarrytown, NY 10591
24. FM FM Global
FM Global Corporate Offices, 270 Central Avenue, Johnston, RI 02919
25. FTI Facing Tile Institute
Box 8880, Canton, OH 44711

- 26. GA Gypsum Association
6525 Belcrest Road Suite 480, Hyattsville, MD 20782

- 27. GANA Glass Association of North America
800 SW Jackson Street Suite 1500, Topeka, KS 66612-1200

- 28. ICC International Code Council
500 New Jersey Avenue NW 6th Floor, Washington, DC 20001

- 29. IES Illuminating Engineering Society
120 Wall Street, Floor 17, New York, NY 10005-4001

- 30. MIL Military Specifications
Naval Publications and Forms Center
5801 Tabor Avenue, Philadelphia, PA 19120

- 31. NAAMM National Association of Architectural Metal Manufacturers
800 Roosevelt Road Building C Suite 312, Glen Ellyn, IL 60137

- 32. NCMA National Concrete Masonry Association
13750 Sunrise Valley Drive, Herndon, VA 20171-4662

- 33. NECA NECA
National Electrical Contractors Association
3 Bethesda Metro Center Suite 1100, Bethesda, MD 20814

- 34. NEMA National Electrical Manufacturers Association
1300 North 17th Street Suite 1752, Rosslyn, VA 22209

- 35. NFPA National Fire Protection Association
1 Batterymarch Park, Quincy, MA 02169-7471

- 36. NIST National Institute of Standards and Technology
(U.S. Department of Commerce), 100 Bureau Drive, Stop 1070
Gaithersburg, MD 20899-1070

- 37. NRCA National Roofing Contractors Association
10255 West Higgins Road Suite 600, Rosemont, IL 60018-5607

- 38. NSF National Sanitation Foundation International
P.O. Box 130140, 789 North Dixboro Road, Ann Arbor, MI 48113-0140

- 39. OSHA Occupational Safety & Health Administration
200 Constitution Avenue NW, Washington, DC 20210

- 40. PCA Portland Cement Association
5420 Old Orchard Road, Skokie, IL 60077

- 41. PCI Prestressed Concrete Institute
200 West Adams Street Suite 2100, Chicago, IL 60606

- 42. SAE Society of Automotive Engineers
SAE World Headquarters
400 Commonwealth Drive, Warrendale, PA 15096-0001
- 43. SDI Steel Deck Institute
P.O. Box 25, Fox River Grove, IL 60021
- 44. SDI Steel Door Institute
30200 Detroit Road, Westlake, OH 44145-1987
- 45. SIGMA Sealed Insulating Glass Manufacturers Assoc.
401 North Michigan Avenue Suite 2400, Chicago, IL 60611
- 46. SJI Steel Joist Institute
234 Cheves Street, Florence, SC 29501
- 47. SMACNA Sheet Metal and Air Conditioning
Contractor's National Association
4201 Lafayette Center Drive, Chantilly, VA 20151-1219
- 48. SSPC Society for Protective Coatings
40 24th Street 6th Floor, Pittsburgh, PA 15222-4656
- 49. TCA Tile Council of America
100 Clemson Research Boulevard, Anderson, SC 29625
- 50. UL Underwriters Laboratories
333 Pfingston Road; Northbrook, IL 60062

1.04 SUBMITTALS

- A. For OWNER's records, CONTRACTOR shall submit copies of permits, licenses, certifications, inspection reports, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

1.05 DEFINITIONS

- A. Indicated:
 - 1. The term "indicated" is a cross-reference to details, notes, or schedules on the drawings, to other paragraphs or schedules in the specifications and to similar means of recording requirements in the Contract Documents.
 - 2. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate cross-reference, and no limitation is intended except as specifically noted.
- B. Approve (or Words of Similar Nature):
 - 1. Where used in conjunction with ENGINEER's response to submittals, requests, applications, inquiries, reports, and claims by CONTRACTOR, the meaning of the term "approve" will be held to the limitation of ENGINEER's responsibilities and duties as specified in Paragraph 1.02.B.1. of the General Conditions.

2. In no case will "approval" by ENGINEER be interpreted as a release of CONTRACTOR from responsibility to fulfill requirements of the Contract Documents.
- C. Minimum Requirements:
1. Indicated requirements are for a specific minimum acceptable level of quality or quantity, as recognized in the industry.
 2. Actual work must comply with (or within specified tolerances) or exceed minimums.
 3. CONTRACTOR shall refer uncertainties to ENGINEER before proceeding.
- D. Abbreviations: Abbreviations, where not defined in the Contract Documents, will be interpreted to mean the normal construction industry terminology.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Whenever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name and catalog number or by reference to recognized industry standards.
 - 2. To facilitate CONTRACTOR's understanding of the design intent, procedures have been established for advance submittal of design data and for its review or rejection by ENGINEER.
 - 3. The type of submittal requirements specified in this section include progress schedule, shop drawings, product data, samples, and other miscellaneous work related submittals.
- B. Related work described elsewhere: More detailed requirements for submittals are described in other sections of these specifications for some materials and equipment. They are to be considered additional requirements to supplement the requirements specified in this section. Submittals shall conform to Article 6 of the General Conditions.
- C. Definitions: "Electronic Submittal" is defined as any submittal transmitted electronically to ENGINEER for review.

1.02 IDENTIFICATION OF SUBMITTALS

- A. CONTRACTOR shall completely identify each submittal and resubmittal by showing at least the following information:
 - 1. Name and address of submitter, plus name and telephone number of the individual who may be contacted for further information.
 - 2. Name and location of project and identification number.
 - 3. Drawing number and specifications section number to which the submittal applies.
 - 4. Include the date of each submittal or resubmittal.

1.03 GROUPING OF SUBMITTALS

- A. Unless otherwise specifically permitted by ENGINEER, CONTRACTOR shall make all submittals in groups containing all associated items so that information is available for checking each item when it is received.
- B. Partial submittals may be rejected as not complying with the provisions of the Contract Documents.

1.04 TIMING OF SUBMITTALS

- A. CONTRACTOR shall make all submittals far enough in advance of scheduled dates of installation to provide required time for reviews, for securing necessary approval, for possible revision and resubmittal, and for placing orders and securing delivery.

- B. The review period for submittals that are received after 3 P.M. shall commence on the following business day.

1.05 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit initial schedule in duplicate within 10 days after date of OWNER-CONTRACTOR Agreement.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a horizontal bar chart with separate line for each major portion of Work or operation, identifying first workday of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submission.
- G. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.06 SHOP DRAWINGS

- A. Shop drawings shall include specially prepared technical data for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for general application to a range of similar projects. Shop drawings shall be submitted for all manufactured or fabricated items. See individual technical sections for special requirements.
- B. CONTRACTOR shall make all shop drawings accurately to scale and sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- C. Shop drawings shall be checked, approved, and stamped by CONTRACTOR in accordance with the General Conditions before transmittal to ENGINEER for review and approval.
- D. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 25% completion of the Work. Applications for payment beyond 25% of the Contract amount will not be recommended for payment until all shop drawings are submitted or a revised schedule for any remaining submittals is agreed to by OWNER and ENGINEER.
- E. CONTRACTOR shall submit shop drawings following the procedure described below. Except as noted, six color copies of shop drawings and descriptive data shall be submitted to ENGINEER for approval. Three copies of these will be returned to CONTRACTOR if approved. If shop drawings are not approved or if they are stamped "Approved as Noted-Resubmit," two corrected copies will be returned to CONTRACTOR for use in

resubmittal. If CONTRACTOR desires more than three approved copies, submitted quantity shall be increased accordingly.

- F. Shop drawings shall be submitted in 3-tab report covers, binder clips, or large envelopes.
- G. Shop drawings submitted to ENGINEER will be reviewed and stamped "Approved," "Approved as Noted," "Approved as Noted-Resubmit," or "Not Approved." CONTRACTOR shall resubmit the above number of corrected shop drawings for all shop drawings stamped "Approved as Noted-Resubmit" and "Not Approved" and will continue this process until shop drawings are stamped "Approved" or "Approved as Noted." If drawings are stamped "Approved as Noted-Resubmit," fabrication may proceed in accordance with the marked-up shop drawings. Installation shall not proceed until shop drawings have been resubmitted and stamped "Approved" or "Approved as Noted."
- H. If shop drawings are stamped "Approved as Noted" or "Approved as Noted-Resubmit" and CONTRACTOR does not agree with revisions or cannot conform with revisions, fabrication shall not proceed and shop drawings shall be resubmitted with explanation of CONTRACTOR's position.
- I. All shop drawings used for construction site activities shall bear the "Approved" or "Approved as Noted" stamp of ENGINEER.
- J. Arrangements may be made between CONTRACTOR and ENGINEER to provide additional copies of "Approved" shop drawings for field activity purposes.

1.07 COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically described in the Contract Documents, whenever a choice of color or pattern is available in a specified product, CONTRACTOR shall submit accurate color charts and pattern charts to ENGINEER for OWNER's review and selection.
- B. Unless all available colors and patterns have identical wearing capabilities and are identically suited for the installation, CONTRACTOR shall completely describe the relative capabilities of each.

1.08 SAMPLES AND FIELD MOCKUPS

- A. CONTRACTOR shall provide samples and field mockups where noted or specified.
- B. Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the work will be judged.
- C. Samples shall be of sufficient size and quantity to clearly illustrate the functional characteristics of the product and full range of color, texture, and pattern.
- D. Samples shall have labels firmly attached, bearing the following information:
 - 1. Name of project.
 - 2. Description of product and finish.
 - 3. Name of CONTRACTOR.
 - 4. Trade name and number of product.
 - 5. Standards met by the product.

- E. Approval of samples must be obtained prior to proceeding with any work affected by material requiring sample approval.
- F. Samples, unless otherwise noted, become the property of OWNER.
- G. In situations specifically approved by ENGINEER, the retained sample may be used in the construction as one of the installed items.
- H. Field mockups:
 - 1. CONTRACTOR shall erect field mockups at the project site in a location acceptable to ENGINEER and OWNER.
 - 2. When accepted by ENGINEER, the mockup will become the basis for comparison of the actual work.
 - 3. Remove mockup at conclusion of the work if it was not incorporated into the work.

1.09 PRODUCT DATA

- A. CONTRACTOR shall provide product data as required to supplement shop drawings.
- B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by CONTRACTOR to illustrate a material, product, or system for some portion of the work.
- C. CONTRACTOR shall collect required product data into one submittal for each unit of work or system.
- D. CONTRACTOR shall include manufacturer's standard printed recommendations for application and use, compliance with standards, performance characteristics, wiring and piping diagrams and controls, component parts, finishes, dimensions, required clearances, and other special coordination requirements.
- E. CONTRACTOR shall mark each copy of standard printed data to identify pertinent products, models, options, and other data.
- F. CONTRACTOR shall supplement manufacturer's standard data to provide information unique to the work.

1.10 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by ENGINEER.
- B. Shop Drawings and Product Data:
 - 1. Revise initial drawings or data and resubmit as specified for initial submittal.
 - 2. Itemize in a cover letter any changes which have been made other than those requested by ENGINEER.

1.11 MANUFACTURER'S DIRECTIONS

- A. Manufactured articles, materials, and equipment shall be stored, commissioned, operated, applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer, unless specified to the contrary.

- B. Wherever specifications call for work to be performed or materials to be installed in accordance with the manufacturer's printed instructions or directions, CONTRACTOR shall furnish copies as required for shop drawings of those instructions or directions to ENGINEER before installing the material or performing the work.

1.12 MAINTENANCE MANUAL

- A. Prior to 50% completion of the Contract or at a minimum of 45 days prior to the scheduled start-up date of any individual item of equipment, whichever is earlier, CONTRACTOR shall furnish to ENGINEER four complete copies of a maintenance manual for all equipment furnished. Applications for payment beyond 50% of the contract amount will not be recommended for payment until all maintenance manuals are submitted or a revised schedule for remaining maintenance manuals is agreed to by OWNER and ENGINEER.
- B. The manuals shall include manufacturer's instructions for maintenance and operation for each item of mechanical and electrical equipment. Manuals shall be specific for the equipment as installed; provide project specific inserts as required. Manuals shall contain: operation instructions, lubrication schedules, types and quantities, preventative maintenance program, spare parts list, parts lists, I.D. No. and exploded views, assembly instructions, parts supplier location, trouble shooting and startup procedures and, where applicable, test data and curves.
- C. All sheets shall have reduced dimensions as described for shop drawings. Only one copy shall be submitted in a 3-ring binder or 3-tab report cover, and the remaining copies shall be furnished in 3-tab report covers, binder clips, or large envelopes.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1—GENERAL

1.01 SUMMARY

- A. Work Includes:
 - 1. Quality Assurance—Control of Installation.
 - 2. Tolerances.
 - 3. Manufacturers' Field Services and Reports.

1.02 QUALITY ASSURANCE—CONTROL OF INSTALLATION

- A. CONTRACTOR shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. CONTRACTOR shall comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, CONTRACTOR shall request clarification from ENGINEER before proceeding.
- D. CONTRACTOR shall comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Work shall be performed by persons qualified to produce workmanship of specified quality.
- F. CONTRACTOR shall secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 TOLERANCES

- A. CONTRACTOR shall monitor tolerance control of installed products to produce acceptable work and shall not permit tolerances to accumulate.
- B. CONTRACTOR shall comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- C. CONTRACTOR shall adjust products to appropriate dimensions; position before securing products in place.

1.04 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections or when requested by ENGINEER, CONTRACTOR shall require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, and quality of workmanship.

- B. CONTRACTOR shall submit qualifications of observer to ENGINEER 30 days in advance of required observations.
- C. CONTRACTOR shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. CONTRACTOR shall submit report in duplicate within 30 days of observation to ENGINEER for information.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Temporary utilities.
 - 2. Temporary stairs and access.
 - 3. Temporary support facilities.
 - 4. Removal of temporary facilities.
- B. CONTRACTOR shall arrange for and provide temporary facilities as required for proper and expeditious prosecution of the Work.
- C. CONTRACTOR shall pay all costs, except as otherwise specified, until final acceptance of the Work unless OWNER makes arrangements for use of completed portions of the Work after substantial completion in accordance with the provisions of the General Conditions.
- D. CONTRACTOR shall make all temporary connections to utilities and services in locations acceptable to OWNER and local authorities having appropriate jurisdiction.
 - 1. Furnish all necessary labor and materials.
 - 2. Make all installations in a manner subject to the acceptance of such authorities and OWNER.
 - 3. Maintain such connections.
 - 4. Remove temporary installation and connection when no longer required.
 - 5. Restore services and sources of supply to proper operating conditions.

1.02 TEMPORARY UTILITIES

- A. Temporary Toilets: CONTRACTOR shall provide and maintain sanitary temporary chemical toilets located where approved by OWNER and in sufficient number required for the work force employed by CONTRACTOR.
- B. Temporary Electrical Services:
 - 1. CONTRACTOR shall make all necessary arrangements, furnish, install, and maintain necessary temporary electrical services at the Site. Services shall be a temporary power and lighting system adequate for the construction of this Project and in accordance with OSHA Requirements for Construction Projects. Installation of the temporary power and lighting system is to begin upon notification to proceed and shall be installed and routed in a manner so as not to interfere with construction of the Project. CONTRACTOR shall remove all temporary services when Project is complete.
 - 2. All utility charges for installation of the temporary services shall be paid for by CONTRACTOR. All metering installation charges and all energy charges for electric current used for temporary lighting and power are to be paid by CONTRACTOR.
 - 3. No permanent electrical equipment or wiring shall be used without express written permission of OWNER. Such approval, if given, shall not affect guarantee period. If OWNER authorizes use of permanent service facilities, CONTRACTOR shall pay all

metering costs until acceptance or occupancy (whichever occurs first) of building by OWNER.

- C. Weather Protection and Temporary Heat: CONTRACTOR shall provide weather protection to protect the Work from damage because of freezing, rain, snow, and other inclement weather.
- D. Temporary Telephone Service: CONTRACTOR shall provide, without extra cost to OWNER, telephone services at the Site for phones and computer modems specified in Section 01590-Field Offices and Sheds for the duration of the Work at the Site. Also provide service as required for CONTRACTOR's use. Party making toll calls shall pay for same.
- E. Temporary Water: CONTRACTOR shall supply its own water during construction. CONTRACTOR shall also provide its own piping, valves, and appurtenances for its requirements. Connection to the existing water system shall be coordinated with OWNER and shall meet all code requirements including disinfection and backflow prevention.
- F. Temporary Fire Protection: CONTRACTOR and Subcontractor(s) who maintain or provide an enclosed shed or trailer shall provide and maintain in operating order in each shed or trailer a minimum of one fire extinguisher. More extinguishers shall be provided as necessary. Fire extinguishers shall be minimum dry chemical, nonfreezing-type, UL rating 2A-30BC, with 10-pound capacity for Class A, B, and C fires.
- G. CONTRACTOR's and Subcontractor(s)' personnel shall refrain from smoking during excavation, laying pipe, backfilling, and other work at the Site which may involve potential contact with explosive vapors or gasoline products.

1.03 TEMPORARY STAIRS AND ACCESS

- A. CONTRACTOR shall provide and maintain all equipment such as temporary stairs, ladders, ramps, runways, chutes, and so on as required for proper execution of the Work. CONTRACTOR shall be responsible for providing its own scaffolds, hoists, etc.
- B. All such apparatus, equipment, and construction shall meet all requirements of OSHA, the labor laws, and other applicable State and local laws. Provide stairs with handrails. As soon as possible and where applicable, permanent stairs shall be installed.
- C. As soon as permanent stairs are created, provide temporary protective treads, handrails, and shaft protection.
- D. Provide barricades at hazardous locations, complete with signs, temporary general lighting, warning lights, and similar devices as required.

1.04 TEMPORARY SUPPORT FACILITIES

- A. CONTRACTOR shall provide whatever facilities and services which may be needed to properly support primary construction process and meet compliance requirements and governing regulations.
- B. CONTRACTOR shall not use permanent facilities except as otherwise indicated, unless authorized by OWNER.

1.05 REMOVAL OF TEMPORARY FACILITIES

- A. Remove temporary materials, equipment, services, and construction as soon as practicable but no later than just prior to final completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities and restore existing facilities used during construction to specified, or to original, condition.
- C. Minor temporary facilities which interfere with OWNER's operations shall be removed at the end of each Work period.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01560

TEMPORARY CONTROLS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Dust Control.
 - 2. Water, Erosion, and Sediment Control.
 - 3. Noise Control.
 - 4. Traffic Control.
 - 5. Site Security.
 - 6. Daily Cleanup.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 DUST CONTROL

- A. CONTRACTOR shall execute the Work by methods to minimize raising dust from construction operations.
- B. CONTRACTOR shall provide positive means to prevent air-borne dust from dispersing into atmosphere.
- C. CONTRACTOR shall provide partitions, enclosures, etc., within buildings as necessary to confine dust and protect adjacent areas.

3.02 WATER, EROSION, AND SEDIMENT CONTROL

- A. CONTRACTOR shall grade site to drain and shall maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. CONTRACTOR shall protect Site from puddling or running water.
- C. CONTRACTOR shall provide erosion control measures as necessary to control discharge of sediment laden water to surface waters and wetlands.
- D. Except as provided for in the document, overland discharge of water from dewatering operations shall not be allowed. Depending on water quality, such water shall either be piped directly to the surface water or shall be directed to sedimentation basins or other such structures or features prior to discharge to surface waters so as not to cause damage to existing ground and improvements, erosion, or deposition in the discharge area.

- E. CONTRACTOR shall use jute or synthetic netting, silt fences, straw bales, dikes, channels, and other applicable measures to prevent erosion of soils disturbed by its construction operation.
- F. Restoration of the Site shall proceed concurrently with the construction operation. See Drawings and Specifications for erosion control measures in addition to that which may be required above.
- G. Erosion control measures shall comply with the following document: "Standard Specifications for Soil Erosion and Sediment Control," of the Illinois Environmental Protection Agency, IEPA/WPC 87-012.

3.03 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise produced by construction operations.

3.04 TRAFFIC CONTROL

- A. CONTRACTOR shall be responsible for providing all signs, barricades, flagmen and other traffic control devices in the construction zone.
- B. All traffic control measures shall meet the requirements of Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition, and the Standard Specifications for Traffic control Items, Latest Edition.
- C. Do not close or obstruct roadways without approval of OWNER.
- D. Maintain one-way traffic on streets at all times.
- E. Conduct operations with minimum interference to roadways.

3.05 SITE SECURITY

- A. CONTRACTOR shall have the sole responsibility of safeguarding the Site perimeter to prevent unauthorized entry to the Site throughout the duration of the Project. CONTRACTOR shall at all times provide such permanent and temporary fencing or barricades or other measures as may be necessary to restrict unauthorized entry to its construction area including construction in public rights-of-way or easements. Site security measures shall include safeguards against attractive nuisance hazards as a result of construction activity.
- B. CONTRACTOR shall at all times be responsible for the security of the Work including materials and equipment. OWNER will not take any responsibility for missing or damaged equipment, tools, or personal belongings. CONTRACTOR shall have the sole responsibility of safeguarding the Work and the Site throughout the duration of the Project.

3.06 DAILY CLEANUP

- A. CONTRACTOR shall clean up the Site and remove all rubbish on a daily basis.

- B. CONTRACTOR shall clean up public streets and highways and remove any dirt, mud or other materials due to project traffic on daily basis and shall comply with all local and state ordinances and permit requirements.

END OF SECTION

SECTION 01590

FIELD OFFICES AND SHEDS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Materials, equipment, and furnishings.
 - 2. Storage areas and sheds.
 - 3. Preparation.
 - 4. Installation.
 - 5. Maintenance and cleaning.
 - 6. Removal.

PART 2-PRODUCTS

2.01 MATERIALS, EQUIPMENT, AND FURNISHINGS

- A. Materials, equipment and furnishings shall be serviceable, new or used, and adequate for required purpose.

2.02 CONTRACTOR OFFICE AND FACILITIES

- A. CONTRACTOR shall provide facilities to meet CONTRACTOR's needs and to provide space for Project meetings.
- B. Provide telephone as required for CONTRACTOR's needs.

2.03 STORAGE AREAS AND SHEDS

- A. Provide storage areas and sheds of size to meet storage requirements for products of individual sections, allowing for access and orderly provision for maintenance and for observation of products to meet requirements of Section 01600-Materials and Equipment.

PART 3-EXECUTION

3.01 PREPARATION

- A. CONTRACTOR shall fill and grade sites for temporary structures to provide drainage away from buildings.

3.02 INSTALLATION

- A. CONTRACTOR shall install office spaces ready for occupancy 15 days after date fixed in Notice to Proceed or as agreed upon by ENGINEER.

3.03 MAINTENANCE AND CLEANING

- A. CONTRACTOR shall maintain approach walks free of mud, water, and snow.

3.04 REMOVAL

- A. Upon final acceptance and completion of the Work, CONTRACTOR shall remove field offices, foundations, utility ~~services~~, and debris, and shall restore ~~areas~~.

END OF SECTION

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: CONTRACTOR shall be responsible for the delivery, handling, storage and protection of all material and equipment required to complete the Work as specified herein.
- B. Related Sections and Divisions: Specific requirements for the handling and storage of material and equipment are described in other sections of these Specifications.

1.02 PRODUCTS

- A. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.
- B. CONTRACTOR shall not use materials and equipment removed from existing construction, except as specifically required, or allowed, by the Contract Documents.
- C. When any construction deviations from the Drawings and/or Specifications necessary to accommodate equipment supplied by CONTRACTOR, result in additional costs to CONTRACTOR or other contractors, such additional costs shall be borne by CONTRACTOR. CONTRACTOR shall also pay any additional costs necessary for revisions of Drawings and/or Specifications by ENGINEER.
- D. Each major component of equipment shall bear a nameplate giving the name and address of the manufacturer and the catalogue number or designation.

1.03 TRANSPORTATION AND HANDLING

- A. Materials, products and equipment shall be properly containerized, packaged, boxed, and protected to prevent damage during transportation and handling.
- B. CONTRACTOR shall not overload any portion of the structure in the transporting or storage of materials.
- C. CONTRACTOR shall not damage other construction by careless transportation, handling, spillage, staining or impact of materials.
- D. CONTRACTOR shall provide equipment and personnel to handle products, including those provided by OWNER, by methods to prevent soiling and damage.
- E. CONTRACTOR shall provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.
- F. CONTRACTOR shall handle product by methods to avoid bending or overstressing. Lift large and heavy components only at designated lift points.

1.04 DELIVERY AND RECEIVING

- A. CONTRACTOR shall arrange deliveries of products in accordance with the Progress Schedule, allowing time for observation prior to installation.
- B. CONTRACTOR shall coordinate deliveries to avoid conflict with the Work and conditions at the Site; work activities of other contractors or OWNER; limitations on storage space; availability of personnel and handling equipment and OWNER's use of premises.
- C. CONTRACTOR shall deliver products in undamaged, dry condition, in original unopened containers or packaging with identifying labels intact and legible.
- D. CONTRACTOR shall clearly mark partial deliveries of component parts of equipment to identify equipment and contents to permit easy accumulation of parts and to facilitate assembly.
- E. Immediately on delivery, CONTRACTOR shall inspect shipment to assure:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.
 - 2. Quantities are correct.
 - 3. Accessories and installation hardware are correct.
 - 4. Containers and packages are intact and labels legible.
 - 5. Products are protected and undamaged.

1.05 STORAGE AND PROTECTION

- A. General:
 - 1. CONTRACTOR shall store products, immediately on delivery, in accordance with manufacturer's instructions, with all seals and labels intact and legible.
 - 2. Available storage space at the Site is limited. Any additional off-site space required shall be arranged by CONTRACTOR.
 - 3. CONTRACTOR shall allocate the available storage areas and coordinate their use by the trades on the job.
 - 4. CONTRACTOR shall arrange storage in a manner to provide access for maintenance of stored items and for observation.
- B. In enclosed storage, CONTRACTOR shall:
 - 1. Provide suitable temporary weather tight storage facilities as may be required for materials that will be damaged by storage in the open.
 - 2. Maintain temperature and humidity within ranges stated in manufacturer's instructions.
 - 3. Provide ventilation for sensitive products as required by manufacturer's instructions.
 - 4. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
 - 5. Store solid materials such as insulation, tile, mechanical and electrical equipment, fittings, and fixtures under shelter, in original packages, away from dampness and other hazards.
 - 6. Store liquid materials away from fire or intense heat and protect from freezing.
- C. At exterior storage, CONTRACTOR shall:
 - 1. Store unit materials such as concrete block, brick, steel, pipe, conduit, door frames, and lumber off ground, out of reach of dirt, water, mud and splashing.
 - 2. Store tools or equipment that carry dirt outside.
 - 3. Store large equipment so as not to damage the Work or present a fire hazard.

4. Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet material and provide ventilation to avoid condensation.
5. Completely cover and protect any equipment or material which is prime coated or finish painted with secured plastic or cloth tarps. Store out of reach of dirt, water, mud and splashing.
6. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent mixing with foreign matter.
7. Provide surface drainage to prevent erosion and ponding of water.
8. Prevent mixing of refuse or chemically injurious materials or liquids.
9. Cover aggregates such as sand and gravel in cold wet weather.
10. Remove all traces of piled bulk materials at completion of work and return site to original or indicated condition.

1.06 MAINTENANCE OF STORAGE

- A. CONTRACTOR shall periodically inspect stored products on a scheduled basis.
- B. CONTRACTOR shall verify that storage facilities comply with manufacturer's product storage requirements, and verify that manufacturer required environmental conditions are maintained continually.
- C. CONTRACTOR shall verify that surfaces of products exposed to the elements are not adversely affected and that any weathering of finishes is acceptable under requirements of Contract Documents.
- D. CONTRACTOR shall perform scheduled maintenance of equipment in storage as recommended by the manufacturer. A record of the maintenance shall be kept and turned over to ENGINEER when the equipment is installed.

1.07 INSTALLATION REQUIREMENTS

- A. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the respective manufacturers, unless otherwise specified.
- B. After installation, CONTRACTOR shall protect all materials and equipment against weather, dust, moisture, and mechanical damage.
- C. CONTRACTOR shall be responsible for all damages that occur in connection with the care and protection of all materials and equipment until completion and final acceptance of the Work by OWNER. Damaged material and equipment shall be immediately removed from the Site.

1.08 EQUIPMENT WARRANTIES

- A. Warranties shall be nonprorated, include all parts and labor, and be in written form. Warranties shall specifically exclude buyer's indemnification language. Warranty language shall not eliminate manufacturer's responsibility for sizing of the equipment. During warranty period, manufacturer shall be responsible for any travel expenses, outside contractor fees, and rental equipment fees associated with providing warranty service. Warranties shall not exclude normal wear items. Manufacturer shall pay expenses incurred for repairs and parts replacement not made by manufacturer if manufacturer's response is

not within 72 hours of notification by OWNER. Warranty language shall be provided with the shop drawings.

1.09 CONCRETE EQUIPMENT BASE

- A. Cast-in-place concrete equipment bases shall be provided for all new and relocated equipment including electrical control panels, motor control centers, switchgear, etc. Concrete equipment bases shall be provided by CONTRACTOR except where specifically noted to be provided by others. Bases shall be 3-1/2 inch minimum height and shall be a minimum of 3 inches larger than equipment being supported. Grouting of equipment bases shall be as recommended by equipment manufacturer.
- B. Concrete and grout shall meet applicable sections of the specifications.
- C. Provide all anchor bolts, metal shapes and templates to be cast in concrete or used to form concrete for support of equipment.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01650

STARTING OF SYSTEMS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Starting equipment and systems.
 - 2. Demonstration and instructions.
 - 3. Start-up and testing.
- B. CONTRACTOR shall perform the Work described in the following subsections.

1.02 STARTING EQUIPMENT AND SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify ENGINEER and OWNER a minimum of seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or for other conditions that may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable manufacturer's representative and CONTRACTOR's personnel in accordance with manufacturers' instructions.
- G. Require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Equipment manufacturer shall provide a written report covering checkout, testing, inspections, and start-up and shall identify any deficiencies noted. Report shall be submitted to ENGINEER. CONTRACTOR shall be responsible for correcting all deficiencies noted in report.
- I. Provide lubricants as recommended by manufacturer appropriate for start-up conditions.

1.03 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to OWNER's personnel.
- B. For all mechanical equipment or systems, demonstrate project equipment and instruct in a classroom environment at a location acceptable to the OWNER and instructed by qualified manufacturers' representative who is knowledgeable about the Project.

- C. For equipment or systems requiring seasonal operation, perform demonstration for noncurrent season at start of noncurrent season.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with OWNER's personnel in detail to explain all aspects of operation and maintenance.
- E. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. Supervision and Start-up: Installation of all equipment furnished under this Contract shall be supervised as required by a qualified representative of equipment manufacturer. All equipment shall be placed in operation by a qualified representative of the equipment manufacturer and the staff shall be trained to the satisfaction of OWNER by a qualified representative of the equipment manufacturer. OWNER may videotape training presentations given by manufacturer's representatives. Final payment for various items of equipment will not be made by OWNER until the equipment is operating to OWNER's satisfaction.
- H. Where items of equipment are placed into service at different times or sequence, manufacturer's services for start-up, field testing, and supervision shall be provided for each time or sequence. Training shall be provided prior to or at the time the first similar item of equipment is placed in service.

1.04 START-UP AND TESTING

- A. Prior to acceptance of any portion of the Work, start-up and testing of all equipment and testing of all materials furnished on the Project by CONTRACTOR shall have been conducted in the presence of representatives of CONTRACTOR, OWNER and ENGINEER and also manufacturer if requested by OWNER or ENGINEER.
- B. CONTRACTOR shall provide whatever temporary installations and conditions are necessary in order to perform start-up and testing operations on all equipment and materials furnished under the Contract. Temporary connections and equipment necessary during start-up and testing operations shall include, but not be limited to, temporary piping and electrical equipment and devices, temporary connection from various parts of the systems and any other labor, materials, fuel, devices or items that may be required for start-up and testing operations. Temporary conditions shall include filling with water, if necessary, to check equipment and materials.
- C. All temporary installations and conditions shall be removed by CONTRACTOR upon completion of start-up and testing.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Closeout procedures.
 - 2. Final cleaning.
 - 3. Adjusting.
 - 4. Project record documents.
 - 5. Warranties.
 - 6. Spare parts and maintenance materials.

1.02 CLOSEOUT PROCEDURES

- A. CONTRACTOR shall provide submittals to ENGINEER that are required by governing or other authorities.
- B. CONTRACTOR shall comply with General Conditions and Supplementary Conditions and complete the following before requesting ENGINEER's observation of the Work, or designated portion thereof, for substantial completion.
 - 1. Submit executed warranties, workmanship bonds, maintenance agreements, inspection certificates, and similar required documentation for specific units of Work, enabling OWNER's unrestricted occupancy and use.
 - 2. Submit record documentation, maintenance manuals, tools, spare parts, keys, and similar operational items.
 - 3. Submit consent of surety (if surety required in Contract).
 - 4. Complete final cleaning, touch-up work of marred surfaces, and remove temporary facilities and tools.

1.03 FINAL CLEANING

- A. It is CONTRACTOR's responsibility to completely clean up the construction site at the completion of the Work.
- B. CONTRACTOR shall clean areas of the building in which painting and finishing work is to be performed just prior to the start of this work, and maintain these areas in satisfactory condition for painting and finishing. This cleaning includes:
 - 1. Removal of trash and rubbish from these areas.
 - 2. Broom cleaning of floors.
 - 3. Removal of any plaster, mortar, dust, and other extraneous materials from finish surfaces, including but not limited to exposed structural steel, miscellaneous metal, masonry, concrete, mechanical equipment, piping, and electrical equipment.
- C. In addition to the cleaning specified above and the more specific cleaning that may be required in various technical sections of the Specifications, CONTRACTOR shall prepare the Project for occupancy by a thorough cleaning throughout, which shall include the following:

1. Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
2. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
3. Replace filters of operating equipment.
4. Clean debris from roofs, gutters, downspouts, and drainage systems.
5. Clean site; sweep paved areas, rake clean landscaped surfaces.
6. Remove waste and surplus materials, rubbish, and construction facilities from the Site.

1.04 ADJUSTING

- A. CONTRACTOR shall adjust operating products and equipment to ensure smooth and unhindered operation.

1.05 PROJECT RECORD DOCUMENTS

- A. CONTRACTOR shall maintain on Site, one set of the following record documents to record actual revisions to the Work:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change orders and other modifications to the Contract.
 5. Reviewed shop drawings, product data, and samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. CONTRACTOR shall ensure entries are complete and accurate, enabling future reference by OWNER.
- C. CONTRACTOR shall store record documents separate from documents used for construction.
- D. CONTRACTOR shall record information concurrent with construction progress.
- E. Specifications: CONTRACTOR shall legibly mark and record at each Product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by addenda and modifications.
- F. Record Drawings: CONTRACTOR shall legibly mark each item to record actual construction including:
 1. Measured depths of foundations in relation to finish floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract drawings.

1.06 WARRANTIES

- A. CONTRACTOR shall provide warranties beyond project one year warranty as required by technical sections and as follows.
- B. Submit warranty information as follows:
 - 1. Provide notarized copies.
 - 2. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers, and provide Table of Contents and assemble in three ring binder with durable cover.
 - 3. Submit with request for certificate of Substantial Completion.
 - 4. For items of work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

1.07 SPARE PARTS AND MAINTENANCE MATERIALS

- A. CONTRACTOR shall provide spare parts, maintenance, and extra materials in quantities specified in individual specification sections.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

WAGE RATES

Du Page County Prevailing Wage for January 2015

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	--	---	-	-----	-----	-----	---	---	---	-----	-----	-----
ASBESTOS ABT-GEN		ALL		38.200	38.700	1.5	1.5	2.0	13.78	10.12	0.000	0.500
ASBESTOS ABT-MEC		BLD		35.100	37.600	1.5	1.5	2.0	11.17	10.76	0.000	0.720
BOILERMAKER		BLD		44.240	48.220	2.0	2.0	2.0	6.970	17.54	0.000	0.350
BRICK MASON		BLD		42.580	46.840	1.5	1.5	2.0	9.850	13.60	0.000	1.030
CARPENTER		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
CEMENT MASON		ALL		39.250	41.250	2.0	1.5	2.0	12.70	17.14	0.000	0.450
CERAMIC TILE FNSHER		BLD		35.810	0.000	1.5	1.5	2.0	10.55	8.440	0.000	0.710
COMMUNICATION TECH		BLD		32.650	34.750	1.5	1.5	2.0	9.550	15.16	1.250	0.610
ELECTRIC PWR EQMT CP		ALL		37.890	51.480	1.5	1.5	2.0	5.000	11.75	0.000	0.380
ELECTRIC PWR GRNDMAN		ALL		29.300	51.480	1.5	1.5	2.0	5.000	9.090	0.000	0.290
ELECTRIC PWR LINEMAN		ALL		45.360	51.480	1.5	1.5	2.0	5.000	14.06	0.000	0.450
ELECTRIC PWR TRK DRV		ALL		30.340	51.480	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRICIAN		BLD		38.160	41.980	1.5	1.5	2.0	9.550	18.29	4.680	0.680
ELEVATOR CONSTRUCTOR		BLD		49.900	56.140	2.0	2.0	2.0	12.73	13.46	3.990	0.600
FENCE ERECTOR	NE	ALL		35.840	37.840	1.5	1.5	2.0	13.01	11.51	0.000	0.300
FENCE ERECTOR	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
GLAZIER		BLD		40.000	41.500	1.5	2.0	2.0	12.49	15.99	0.000	0.940
HT/FROST INSULATOR		BLD		48.450	50.950	1.5	1.5	2.0	11.47	12.16	0.000	0.720
IRON WORKER	E	ALL		43.000	45.000	2.0	2.0	2.0	13.45	20.65	0.000	0.350
IRON WORKER	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
LABORER		ALL		38.000	38.750	1.5	1.5	2.0	13.78	10.12	0.000	0.500
LATHER		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
MACHINIST		BLD		44.350	46.850	1.5	1.5	2.0	6.760	8.950	1.850	0.000
MARBLE FINISHERS		ALL		31.400	32.970	1.5	1.5	2.0	9.850	13.10	0.000	0.600
MARBLE MASON		BLD		41.780	45.960	1.5	1.5	2.0	9.850	13.42	0.000	0.760
MATERIAL TESTER I		ALL		28.000	0.000	1.5	1.5	2.0	13.78	10.12	0.000	0.500
MATERIALS TESTER II		ALL		33.000	0.000	1.5	1.5	2.0	13.78	10.12	0.000	0.500
MILLWRIGHT		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
OPERATING ENGINEER		BLD	1	47.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	2	45.800	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	3	43.250	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	4	41.500	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	5	50.850	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	6	48.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	7	50.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		FLT		35.000	35.000	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	1	45.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	2	44.750	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	3	42.700	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	4	41.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	5	40.100	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	6	48.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	7	46.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
ORNAMNTL IRON WORKER E		ALL		43.900	46.400	2.0	2.0	2.0	13.36	17.24	0.000	0.650
ORNAMNTL IRON WORKER W		ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
PAINTER		ALL		41.730	43.730	1.5	1.5	1.5	10.30	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
FILEDRIVER		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
PIPEFITTER		BLD		46.000	49.000	1.5	1.5	2.0	9.000	15.85	0.000	1.780
PLASTERER		BLD		41.250	43.760	1.5	1.5	2.0	9.700	13.08	0.000	0.980
PLUMBER		BLD		46.650	48.650	1.5	1.5	2.0	13.18	11.46	0.000	0.880
ROOFER		BLD		39.700	42.700	1.5	1.5	2.0	8.280	10.06	0.000	0.530
SHEETMETAL WORKER		BLD		44.000	46.000	1.5	1.5	2.0	10.65	13.06	0.000	0.820
SPRINKLER FITTER		BLD		49.200	51.200	1.5	1.5	2.0	11.25	9.500	0.000	0.450
STEEL ERECTOR	E	ALL		42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350

STEEL ERECTOR	W	ALL	45.060	48.660	2.0	2.0	2.0	10.52	13.81	0.000	0.100
STONE MASON		BLD	42.580	46.840	1.5	1.5	2.0	9.850	13.60	0.000	1.030
SURVEY WORKER -> NOT IN EFFECT		ALL	37.000	37.750	1.5	1.5	2.0	12.97	9.930	0.000	0.500
TERRAZZO FINISHER		BLD	37.040	0.000	1.5	1.5	2.0	10.55	10.32	0.000	0.620
TERRAZZO MASON		BLD	40.880	43.880	1.5	1.5	2.0	10.55	11.63	0.000	0.820
TILE MASON		BLD	42.840	46.840	1.5	1.5	2.0	10.55	10.42	0.000	0.920
TRAFFIC SAFETY WRKR		HWY	32.750	34.350	1.5	1.5	2.0	6.550	6.450	0.000	0.500
TRUCK DRIVER		ALL 1	32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER		ALL 2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER		ALL 3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER		ALL 4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TUCKPOINTER		BLD	41.620	42.620	1.5	1.5	2.0	9.850	12.61	0.000	0.650

Legend: RG (Region)

TYP (Trade Type - All, Highway, Building, Floating, Oil & Chip, Rivers)

C (Class)

Base (Base Wage Rate)

FRMAN (Foreman Rate)

M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.)

OSA (Overtime (OT) is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

DUPAGE COUNTY

IRON WORKERS AND FENCE ERECTOR (WEST) - West of Route 53.

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.

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.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for

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and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft.; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower;

Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type), Cretex Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Cretex Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor,

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Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

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. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carryalls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

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Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

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.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

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GRADING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Grading for this work includes, but is not necessarily limited to, rough and finish grading prior to paving, seeding, etc. Grading shall be performed to allow drainage away from tank.
- B. Related Sections and Divisions: Applicable provisions of Division 1 shall govern work in this section.
- C. Payment: General excavation shall include all excavation specified, undercutting, fill, backfill and grading, except rock excavation and unsuitable foundation material, as hereinafter described.

1.02 REFERENCES

- A. ASTM D1557-Test Methods for Moisture Density Relations of Soils and Soil-Aggregate Mixtures using 10-pound Rammer and 18-inch drop.
- B. Standard Specifications: Unless otherwise indicated, Standard Specifications within this section shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.03 SUBMITTALS

- A. CONTRACTOR shall submit samples of materials proposed for use as fill to soils testing laboratory for analysis of their suitability and for recommendations on moisture content during compaction, compaction methods, or other appropriate information.
- B. CONTRACTOR shall submit sufficient samples of each different type or classification of soil to obtain representative values.

1.04 JOB CONDITIONS

- A. The elevations shown for existing work and ground are reasonably correct, but are not guaranteed to be absolutely accurate. No extras will be allowed because of variations between drawings and actual grades.
- B. No soil borings were made for this project. CONTRACTOR shall conduct its own investigation to determine physical conditions at the site which may affect the work.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION**3.01 GENERAL**

- A. Prior to all excavating, CONTRACTOR shall become thoroughly familiar with the site and site conditions.

3.02 PROTECTION

- A. CONTRACTOR shall provide all necessary sheeting, shoring, or other soil retention systems including all labor, material, equipment, and tools required, or as necessary to maintain the excavation in a condition to provide safe working conditions, to permit the safe and efficient installation of all items of Contract work, and to protect adjacent property. CONTRACTOR shall be held liable for any damage which may result to property from excavation or construction operations. Sheeting, shoring, and other soil retainage systems shall be withdrawn or removed in a manner so as to prevent subsequent settlement of structures, utilities, and other improvements.
- B. Design of sheet piling and other soil retaining systems shall be the sole responsibility of CONTRACTOR. Where such systems are shown on the drawings, no parameters such as embedment depth, section profile, presence or lack of walers, etc., nor system type or suitability shall be inferred. CONTRACTOR is responsible for designing and providing a fully functional system compatible with construction and site requirements.
- C. Nothing in this specification shall be deemed to allow the use of protective systems less effective than those required by the Occupational Safety and Health Administration (OSHA) and other applicable code requirements.

3.03 UTILITIES

- A. Before starting excavations, CONTRACTOR shall locate existing underground utilities in all areas of the work.
- B. If utilities are to remain in place, CONTRACTOR shall provide adequate means of protection during earthwork operations.
- C. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult utility owner immediately for directions.
- D. Cooperate with OWNER and utility companies in keeping respective services and facilities in operation, and repair any damaged utilities to satisfaction of utility owner.
- E. CONTRACTOR shall not interrupt existing utilities serving facilities occupied and used by OWNER or others except when permitted in writing by OWNER.
- F. CONTRACTOR shall demolish and completely remove from the site existing underground utilities indicated to be removed after utility has been capped and sealed.
- G. CONTRACTOR shall accurately locate and record abandoned and active utility lines rerouted or extended on project record drawings.

3.04 FINISH ELEVATIONS AND LINES

- A. CONTRACTOR is responsible for setting and establishing finish elevations and lines.

3.05 EXCAVATION

- A. After the site has been cleared and stripped, the site shall be cut and filled to the indicated subgrade as shown or specified.
- B. All excavated material that does not meet the specification for compacted fill or embankment fill or meets the specification but is not required for backfill or fill shall be classified as excess material and shall be removed from the site and disposed of at CONTRACTOR's expense. CONTRACTOR's expense shall include testing, certification, and documentation of uncontaminated soil CONTRACTOR intends to dispose of at a clean construction or demolition debris (CCDD) fill operation.
- C. CONTRACTOR shall backfill and compact all overexcavated areas.

3.06 GRADING

- A. CONTRACTOR shall perform all rough and finish grading required to attain the elevations described herein. Grading shall be performed such that top of foundation is 6 inches above grade and overflow discharge drains away from tank.
- B. Grading Tolerances:
 - 1. Rough Grade: Buildings, parking areas, and sidewalks— ± 0.1 feet.
 - 2. Finish Grade: Granular cushion or crushed stone mat under concrete slabs— ± 0.03 feet.
 - 3. Lawn areas away from buildings, parking areas, and sidewalks— ± 0.25 feet.

END OF SECTION

SECTION 02930

RESTORATION

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Placement of topsoil.
 - 2. Fertilizing.
 - 3. Seeding.
 - 4. Mulching.
 - 5. Maintenance.
- B. All areas disturbed by construction shall be restored. Backslopes adjacent to the sidewalk shall be seeded to the slope intercept.
- C. Related Sections and Divisions: Applicable provisions of Division 1 shall govern work in this section.
- D. Payment: Payment for restoration shall be at the lump sum price bid. Costs for topsoiling, seeding, fertilizer, mulching, and maintenance of restored areas shall be included in the lump sum price bid. One percent of the total Contract price shall be retained following project completion until a uniform 2-inch growth of vegetation is established over all restored areas.

1.02 REFERENCES

- A. Standard Specifications: Unless otherwise indicated, Standard Specifications shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.03 QUALITY ASSURANCE

- A. All work shall be in accordance with Standard Specifications, unless noted otherwise.

PART 2-PRODUCTS

2.01 TOPSOIL

- A. Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, stones greater than 3/4 inches in size, clay or impurities, plants, weeds and roots; pH value of minimum 5.4 and maximum 7.0.
- B. Topsoil from the site may be used if it meets the above requirements.

2.02 SEED

- A. Seed mixture shall be Class 2 per Article 250.07.

2.03 FERTILIZER

- A. Fertilizer shall be as specified in Article 250.

PART 3-EXECUTION

3.01 TOPSOIL

- A. Placing topsoil shall be in accordance with Article 211 of the Standard Specifications. Topsoil shall be placed to a uniform depth of 6 inches in place. Topsoil placement shall be incidental to sodding or seed, fertilizer, and mulching.

3.02 SEEDING

- A. Seeding shall be performed in accordance with Article 250 of the Standard Specifications.
- B. Seed shall be applied at the rates specified in Article 250 of the Standard Specifications.

3.03 FERTILIZER

- A. Fertilizer shall be applied per Article 250 of the Standard Specifications.

3.04 MULCHING

- A. All areas receiving seed shall be mulched.
- B. Mulching shall be performed in accordance with Method 2, Procedure 1 of Article 251 of the Standard Specifications.

END OF SECTION

SECTION 05500

METAL FABRICATIONS

PART 1-GENERAL**1.01 SUMMARY**

- A. **Work Included:** Shop-fabricated carbon steel, stainless steel, and aluminum items, including manway, vent, roof hatch, and other modifications to water storage tank.
- B. **Related Sections and Divisions:** Applicable provisions of Division 1 shall govern work in this section.

1.02 REFERENCES

- A. ASTM A36—Carbon Structural Steel.
- B. ASTM A53—Pipe, Steel, Black, and Hot-Dipped, Zinc-coated Welded and Seamless Steel Pipe.
- C. ASTM A123—Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- D. ASTM A143—Practice for Safeguarding Against Embrittlement of Hot-Dipped Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.
- E. ASTM A153—Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- F. ASTM A176—Specification for Stainless and Heat-Resisting Chromium Steel Plate, Sheet, and Strip.
- G. ASTM A276—Stainless Steel Bars and Shapes.
- H. ASTM A307—Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
- I. ASTM A384—Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
- J. ASTM A385—Practice for Providing High Quality Zinc Coatings (Hot-Dipped).
- K. ASTM A570—Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality.
- L. ASTM A611—Steel Sheet, Carbon, Cold-Rolled, Structural Quality.
- M. ASTM A780—Repair of Damaged Hot-Dip Galvanized Coatings.
- N. ASTM B209—Aluminum and Aluminum-Alloy Sheet and Plate.
- O. ASTM B211—Aluminum-Alloy Bar, Rod, and Wire.
- P. ASTM B221—Aluminum-Alloy Extruded Bar, Rod, Wire, Shape and Tube.

- Q. AWS A2.0—Standard Welding Symbols.
- R. AWS D1.1—Structural Welding Code.
- S. AWS D1.6—Structural Welding Code—Stainless Steel.
- T. AWS D5.4—Stainless Steel Electrodes for Shielded Metal Arc Welding.

1.03 DESIGN REQUIREMENTS

- A. All fabrications shall meet applicable code requirements including OSHA.

1.04 SUBMITTALS FOR REVIEW

- A. Comply with pertinent provisions of Section 01300—Submittals.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, sections, elevations, and details where applicable.
- C. Mill Test Reports: Submit indicating structural strength and composition.
- D. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate net weld lengths.

1.05 QUALITY ASSURANCE

- A. Fabricate steel members in accordance with AISC Code of Standard Practice.
- B. Welders Certificates: Certify welders employed on the work, verifying AWS qualification within the previous 12 months.

1.06 QUALIFICATIONS

- A. Qualify welding processes and welding operators in accordance with AWS "Standard Qualifications Procedures."

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver all materials to job site properly marked to identify the structure for which it is intended and at such intervals to ensure uninterrupted progress of the work. Marking shall correspond to markings indicated on the shop drawings.
- B. Store all members off the ground using pallets, platforms, or other supports.
- C. Do not store materials on the structure in a manner that might cause distortion or damage to the members of the supporting structures.
- D. In the event of damage, immediately make all repairs and replacements necessary at no additional cost to OWNER.

PART 2-PRODUCTS**2.01 MATERIALS-CARBON STEEL**

- A. Steel Sections:
 - 1. ASTM A36 (channels, angles, plates).
 - 2. ASTM A992-50 (wide flange sections).
 - 3. Pipe: ASTM A53, Grade B.
 - 4. Tubes: ASTM 500, Grade B.
 - 5. Silicon content of steel members to be hot-dipped galvanized shall be in the range of 0 to 0.04%. Submit mill test reports confirming compliance.
- B. Sheet Steel: ASTM A570 or A611.
- C. Plain Washers: Round carbon steel complying with FS FF-W-92.
- D. Bolts and Nuts: ASTM A307 Grade A, or galvanized to ASTM A153 for galvanized components for exterior use and where built into exterior walls.
- E. Lock Washers: Helical spring-type carbon steel complying with FS FF-W-84.
- F. Welding Materials: E70XX electrodes for carbon steel or ER316L electrodes for 316L stainless steel.
- G. Select fasteners for the type, grade, and class required.

2.02 MATERIALS-STAINLESS STEEL

- A. Unless otherwise noted, all stainless steel shall meet the requirements of ASTM A27F and shall be Type 316L.
- B. If components are not available in Type 316L, other 300 Series type shall be used as approved by ENGINEER.

2.03 MATERIALS-ALUMINUM

- A. Extruded Aluminum: ASTM B221, Alloy 6061, Temper T6.
- B. Sheet Aluminum: ASTM B209, Alloy 3005.
- C. Aluminum-Alloy Bars: ASTM B211, Alloy 6061, Temper T6.
- D. Bolts, Nuts, and Washers: Stainless steel.
- E. Welding Materials: AWS D1.1; type required for materials being welded.

2.04 FABRICATION

- A. Fabrication and Assembly:
 - 1. Fabricate items of structural steel in accordance with AISC Specifications and as indicated on the approved shop drawings.

2. Properly mark and match-mark materials for field assembly and for identification as to structure and site for which intended.
 3. Fabricate for delivery sequence which will expedite erection and minimize field handling of materials.
 4. Where finishing is required, complete the assembly, including welding of units, before start of finishing operation.
 5. Provide finish surfaces of members exposed in the final structure free of markings, burrs, and other defects.
- B. Connections:
1. Bolts and washers of all types and sizes shall be provided for completion of all field erection.
 2. Comply with AWS Code for procedures, appearance, and quality of welds used in correcting welded work.
 3. Assemble and weld built-up sections to produce true alignment of axes without warp.
 4. Welding shall be done by the shielded arc process.
 5. All welds shall be chipped, ground smooth, and primed immediately after fabrication.
- C. Workmanship:
1. Use materials of size and thickness shown or, if not shown, of size and thickness to produce strength and durability in the finished product.
 2. Work to dimensions shown or accepted on the Shop drawings using proven details of fabrication and support.
 3. Form exposed work true to line and level, with accurate angles and surfaces, and with straight sharp edges.
 4. Form bent metal corners to smallest radius possible without causing grain separation or otherwise impairing works.
 5. Cap all open ends of pipe and structural tubing.
 6. Weld corners and seams continuously, complying with AWS recommendations. At exposed connections, grind exposed welds smooth and flush; match and blend with adjoining surfaces.
 7. Provide for anchorage of the type shown. Coordinate with supporting structures. Fabricate and space the anchoring devices to provide adequate support for intended use.
 8. Cut, reinforce, drill, and tap miscellaneous metal work as indicated to receive hardware and similar items.

2.05 FINISHES

- A. Carbon steel surfaces shall be prepared by abrasive blasting to SSPC-SP10 as specified in Section 09900-Painting.
- B. Do not prime surfaces where galvanizing or field welding is required.
- C. Immediately after surface preparation, prime paint carbon steel items with one coat in accordance with manufacturer's instructions and Section 09900-Painting.
- D. Structural Steel Members: Galvanize after fabrication to the requirements in this section and ASTM A123.
- E. Surfaces which will be inaccessible after assembly or erection shall be finish painted prior to assembly or erection.

F. Galvanizing:

1. All items, except piping designated to be galvanized, shall be hot-dipped galvanized in accordance with ASTM Specification A123 and A153. Piping shall be hot-dipped galvanized in accordance with ASTM A53. Furnish a Certificate of Compliance stating that the galvanizing complies with ASTM Specifications and Standards and all other applicable requirements specified herein.
2. Fabrication of items to be galvanized shall be in accordance with ASTM A143, A384, and A385. Structural steel shall be fabricated generally in accordance with Class 1 guidelines as shown in "Recommended Details for Galvanized Structures" as published by the American Hot Dip Galvanizer's Association, Inc.
3. Galvanized items shall be handled, transported, and stored to prevent damage or staining to the coating. Maintain adequate ventilation and continuous drainage.
4. Silicon content for steel to be hot-dipped galvanized shall be in the range of 0 to 0.04%.
5. Steel work shall be precleaned utilizing a caustic bath, acid pickle and flux, or shall be blast cleaned and fluxed. In either case, all surface contaminants and coatings shall be removed.
6. All welding shall be performed in accordance with the American Welding Society publication D19.0-72, "Welding Zinc Coated Steel." All uncoated weld areas shall be touched up.

- G. Aluminum shall have a mill finish unless otherwise specified. Any aluminum in contact with concrete or dissimilar metal shall be coated with multiple coats of bituminous paint, minimum 10 mils dry.**

PART 3-EXECUTION

3.01 EXAMINATION

- A. Correct conditions detrimental to the proper and timely completion of the work.
- B. Do not proceed until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Furnish setting drawings, diagrams, templates, instructions, and directions for installation of anchorages such as concrete inserts, anchor bolts, and miscellaneous items having integral anchors which are to be embedded in concrete construction.
- B. Coordinate delivery of such items to project.
- C. Clean and strip primed steel items to bare metal where site welding is required.

3.03 INSTALLATION

- A. Setting Precast Anchorages:
 1. Clean bearing surfaces free from bond-reducing materials, and roughen to improve bond to surfaces. Clean the bottom surface of bearing plates.

2. After the bearing members have been positioned and plumbed, tighten and anchor bolts. Do not remove wedges or shims, but if protruding, cut off flush with the edge of the bearing plate before packing with grout.
 3. Pack grout solidly between bearing surfaces and plates to ensure that no voids remain.
- B. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous metal fabrications to in-place construction including threaded fasteners for concrete inserts, toggle bolts, through bolts, lag bolts, wood screws, and other connectors.
- C. Cutting, Fitting and Placement:
1. Perform cutting, drilling, and fitting for installation of miscellaneous metal fabrications.
 2. Set work accurately in location, alignment, and elevation and make plumb, level, true, and free from rack measured from established lines and levels.
 3. Fit exposed connections accurately together to form tight hairline joints.
 4. Weld connections which are not to be left as exposed joints, grind joints smooth, and touch-up shop paint coat or galvanizing repair.
- D. Weirs and Baffles:
1. Provide watertight splice plates at joints between sections of weirs and baffles.
 2. Weirs and baffles shall be installed level with a tolerance of $\pm 1/8$ inch.

3.04 FIELD WELDING

- A. Comply with AWS Code for procedures of manual shielded metal arc welding, appearance and quality of weld made, and methods in correcting welding work.

3.05 TOUCH-UP PAINTING

- A. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with same material as used for shop painting in accordance with Section 09970–Water Storage Tank Painting.

3.06 GALVANIZING REPAIR

- A. Areas damaged by welding, flame-cutting or during handling, transport, or erection shall be repaired by one of the following methods whenever damage exceeds 3/16 inches in width.
1. Cold Galvanizing Compound:
 - a. Surfaces to be reconditioned with zinc-rich paint shall be clean, dry, and free of oil, grease, and corrosion products.
 - b. Areas to be repaired shall be power disc-sanded to bright metal. To ensure that a smooth reconditioned coating can be effected, surface preparation shall extend into the undamaged galvanized coating.
 - c. Touch-up paint shall be an organic cold-galvanized compound having a minimum of 94% zinc dust in the dry film.
 - d. The paint shall be spray- or brush-applied in multiple coats until a dry film thickness of 8 mils minimum has been achieved. A finish coat of aluminum paint shall be applied to provide a color blend with the surrounding galvanizing.
 - e. Coating thickness shall be verified by measurements with a magnetic or electromagnetic gauge.

2. Zinc-Based Solder:
 - a. Surfaces to be reconditioned with zinc-based solder shall be clean, dry, and free of oil, grease, and corrosion products.
 - b. Areas to be repaired shall be wire brushed.
 - c. Heat shall be applied slowly and broadly close to but not directly onto the area to be repaired. The zinc-based solder rod shall be rubbed onto the heated metal until the rod begins to melt. A flexible blade or wire brush shall be used to spread the melt over the area to be covered. The zinc-based solder shall be applied in a minimum thickness of 2 mils.
 - d. Coating thickness shall be verified by measurements with a magnetic or electromagnetic gauge.

END OF SECTION

SECTION 09970

STEEL WATER STORAGE TANK PAINTING

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included: Cleaning of sediment, miscellaneous repairs, surface preparation, containment shrouding, and application of paints and coatings. Work also includes installation of a failsafe vent and some minor repairs.
- B. Related Sections and Divisions: Applicable provisions of Division 1 shall govern work in this section.
- C. The tank capacity is rated at 500,000 gallons. The Police Department and Village Hall currently have communication wire and equipment mounted on top of the tank. There are no cellular providers using the tank. The equipment will be left in place and shall be protected using means acceptable to OWNER and ENGINEER.
- D. The tank was constructed in 1974. The tank was last painted in 2001. Additional tank history details can be found in the Elevated Tank Observation Report attached in the Appendix.
- E. Bid Alternative No. 1: Alternative Exterior Coating System: The Base Bid INCLUDES a four-coat system on the exterior as specified herein. An Alternative Bid will be taken for providing a three-coat system as specified with the final coat utilizing a fluoropolymer coating.

1.02 REFERENCES-LATEST EDITIONS OF EACH REFERENCE AT THE TIME OF BIDDING SHALL APPLY

- A. ASTM B117-Standard Practice for Operating Salt Spray (Fog) Apparatus.
- B. ASTM D2247-Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
- C. ASTM D3363-Standard Test Method for Film Hardness by Pencil Test.
- D. ASTM D4060-Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
- E. ASTM D4414-Standard Practice for Measurement of Wet Film Thickness by Notch Gages.
- F. ASTM D4417-Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel.
- G. ASTM D4541-Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.

- H. ASTM D4585—Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation.
- I. ASTM D5064—Standard Practice for Conducting a Patch Test for Assessing Coating Compatibility.
- J. ASTM D7091—Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals.
- K. AWWA—C652—Standard for Disinfection of Water Storage Facilities.
- L. AWWA—D100—Standard for Welded Carbon Steel Tanks for Water Storage.
- M. AWWA—D102—Coating Steel Water-Storage Tanks.
- N. NAPF—National Association of Pipe Fabricators, Section 500-03—Surface Preparation Standard for Ductile Iron Pipe and Fittings Receiving Special External Coatings and/or Special Internal Linings.
- O. SSPC—The Society for Protective Coatings—Steel Structures Painting Manual.

1.03 SUBMITTALS

- A. Submittals shall be in accordance with provisions of Division 1.
- B. Shop primer proposed for use shall be submitted with all material and equipment submittals. All shop primers shall be of the same type and quality as those specified herein.
- C. Submit two copies of manufacturer's Material Safety Data Sheets (MSDS) for each type of paint with the shop drawings. MSDS sheets shall be shipped with the materials and posted at the construction site at all times work is in progress.
- D. Substitution submittals shall include performance test data, as certified by a qualified testing laboratory, for the ASTM tests specified in Part 2.
- E. Submit two copies of the proposed containment system with all tank modifications. Include copies of the system manufacturer's promotional literature, design criteria, and operating instructions for inclusion in the project record files.

1.04 QUALITY ASSURANCE

- A. **Prepainting Meeting:**
 - 1. A prepainting meeting shall be held prior to start of painting.
 - 2. CONTRACTOR and the paint manufacturer's representative shall be present to review the specifications and project scope.
 - 3. The paint manufacturer's representative shall review progress at the site as requested by ENGINEER. These are generally expected to be prior to monthly progress meetings.

1.05 REGULATORY REQUIREMENTS

A. Coating Standards:

1. All paints shall conform to OSHA requirements for allowable exposure to lead, chromate, and other substances regulated as hazardous by the EPA.
2. All paints shall be NSF Standard 61 approved when they are in contact with potable water or within potable water reservoirs.

B. EPA Requirements:

1. See Division 1 for EPA and IEPA regulations.
2. All work shall conform to the Resource Conservation Recovery Act (RCRA).
3. All work shall conform to the Comprehensive Environment Response Compensation and Liability Act (CERCLA).

C. Abrasive-Blast Residue Control:

1. All external abrasive-blast residue shall be contained.
 - a. Containment shall include shrouds from the ground surface to above all working areas and over the top of the tank.
2. Containment shall conform to EPA requirements.
 - a. Containment shall be opaque, allowing daylight penetration.
 - b. Containment shall be impervious and sections shall not permit escape of residue.
 - c. Containment attachments on the exterior of the tank shell shall be removed following abrasive blasting and painting.
3. All internal abrasive-blast residue shall be contained. Residue shall be collected and disposed of as specified.
4. See above and Division 1 for OSHA, EPA, and IEPA regulations. The tank's paint history indicates that no lead, chromium, or cadmium is present in the paint.
5. The containment and the tank interior shall be evacuated by the use of dust collection equipment to prevent discharge of dust to the atmosphere.
6. OWNER will trim any trees necessary to allow installation of shroud.

1.06 WARRANTY

- A. Fluoropolymer coating shall be provided with a 15-year standard manufacturer guarantee against fading, color shifting, chalking, and corrosion.

PART 2-PRODUCTS

2.01 ABRASIVES

- A. Shop abrasives shall provide a blast profile in accordance with the coating manufacturer's recommendations.
- B. Exterior field abrasives shall be fine-grained, low-dust, and silicon-free. Interior wet-field abrasives shall be silicon-free.
- C. Interior dry-field abrasives for partial blast shall be staurolite or garnet.

2.02 COATING MATERIALS

A. Acceptable Manufacturers:

1. All materials required for painting shall be types and quality as manufactured by Tnemec Company, Inc., Sherwin Williams Company, Devco High Performance Coatings, or equal, unless noted otherwise in the schedule.
2. Where thinning is necessary, only the products of the manufacturer furnishing the paint will be allowed. All such thinning shall be done strictly in accordance with the manufacturer's instructions.
3. Paint and paint products listed in the following specification are set up as standard of quality. Other manufacturer's products will be considered as a substitution if CONTRACTOR and paint manufacturer certify that the products offered are recommended for the service intended, are compatible with the shop primers used, are equal in solids content and composition, and are of the same type. Submittal shall include the following performance data as certified by a qualified testing laboratory.
 - a. Abrasion—ASTM D4060, CS-17 Wheel, 1,000 grams load.
 - b. Adhesion—ASTM D4541.
 - c. Hardness—ASTM D3363.
 - d. Humidity—ASTM D2247 and D4585.
 - e. Salt (Fog) Spray—ASTM B117.
4. Accelerated "Fast Dry" formulations of coatings will be permitted if CONTRACTOR requests their use in shop drawings.

B. Exterior:

1. Tnemec Products:
 - a. Primer coat shall be Series 94-H₂O Hydro-Zinc.
 - b. Intermediate coat shall be Series N140 Pota-Pox Plus. Color shall be 20% less light reflective than color coat.
 - c. Preliminary color coat shall be Series 73 Endura-Shield. Color shall be 10% less light reflective than finish coat.
 - d. Finish coat shall be Series 1074 UV Endura-Shield. Color shall be as selected by OWNER.
 - e. Lettering and logo shall be two coats of Tnemec Series 1074 UV Endura-Shield. Colors shall be as selected by OWNER.
2. Sherwin Williams Products:
 - a. Primer coat shall be Corothane I Galvapak zinc primer.
 - b. Intermediate coat shall be Macropoxy 646. Color shall be 20% less light reflective than preliminary color coat.
 - c. Preliminary color coat shall be Acrolon 218 HS Semi-Gloss. Color shall be 10% less light reflective than finish coat.
 - d. Finish coat shall be Acrolon 218 HS Gloss. Color shall be as selected by OWNER.
 - e. Lettering and logo shall be two coats of Acrolon 218 HS Gloss. Color shall be as selected by OWNER.
3. International/Devco High Performance Coatings:
 - a. Primer coat shall be Catha-Coat 302H.
 - b. Intermediate coat shall be Bar-Rust 231. Color shall be 20% less light reflective than color coat.
 - c. Preliminary color coat shall be Devthane 379. color shall be 10% less light reflective than finish coat.
 - d. Finish coat shall be Devthane 379. color shall be as selected by OWNER.
 - e. Name and logo shall be two coats of Devthane 379. Colors shall be as selected by OWNER.

4. Alternative Bid No. 1: Tnemec Products:
 - a. Primer shall be Series 94-H₂O Hydro-Zinc.
 - b. Intermediate coat shall be Series 73 Endura-Shield. Color to be selected by manufacturer upon OWNER selection of finish coat.
 - c. Finish coat shall be Series V700 Hydro Flon. Color shall be selected by OWNER.
 - d. Name and logo shall be Series V700 Hydro Flon. Colors shall be as selected by OWNER.
 5. Alternative Bid No. 1: Sherwin Williams Products:
 - a. Primer shall be Corothane I Galvapac zinc primer.
 - b. Intermediate coat shall be Acrolon 218 HS. Color shall be selected by manufacturer upon OWNER selection of finish coat.
 - c. Finish coat shall be FluoroKem. Color shall be selected by OWNER.
 - d. Name and logo shall be FluoroKem. Colors shall be selected by OWNER.
 6. Alternative Bid No. 3: International/Devoe High Performance Coatings (Fluoropolymer Alternate)):
 - a. Primer shall be Interzinc 52 zinc primer.
 - b. Intermediate coat shall be Intergard 475 HS.
 - c. Finish coat shall be Interfine 1080. Color shall be selected by OWNER.
 - d. Name and logo shall be Interfine 1080. Color shall be selected by OWNER.
- C. Interior Dry Tank and Piping:
1. Tnemec Products:
 - a. Primer coat shall be Series N140.
 - b. Finish coat shall be Series N140-15BL Tank White Pota-Pox Plus.
 2. Sherwin Williams Products:
 - a. Primer coat shall be Sherwin Williams Macropoxy 646.
 - b. Finish coat shall be Macropoxy 646, White.
 3. International/Devoe High Performance Coatings products:
 - a. Primer coat shall be Bar-Rust 233H.
 - b. Finish coat shall be Bar-Rust 233H.
- D. Interior Wet:
1. Tnemec Products:
 - a. Primer coat shall be Series N140-15BL Tank White Pota-Pox Plus. Zinc-rich primer will not be allowed.
 - b. Intermediate coat shall be Series N140-39BL Delft Blue Pota-Pox Plus.
 - c. Finish coat shall be Series N140-15BL Tank White Pota-Pox Plus.
 2. Sherwin Williams Products:
 - a. Primer coat shall be Macropoxy 646 PW, White. Zinc-rich primer will not be allowed.
 - b. Intermediate coat shall be Macropoxy 646 PW, Buff.
 - c. Finish coat shall be Macropoxy 646 PW, White.
 3. International/Devoe High Performance Coatings products:
 - a. Primer coat shall be Bar-Rust 233H. Zinc-rich primer will not be allowed.
 - b. Intermediate coat shall be Bar-Rust 233H.
 - c. Finish coat shall be Bar-Rust 233H.
- E. Masonry Valve Room (Exterior Only) and Ductile Iron Piping:
1. Tnemec Products:
 - a. Primer coat shall be Series N140-1255 Beige Pota-Pox Plus.
 - b. Finish coat shall be Series N140-15BL Tank White Pota-Pox Plus.

2. Sherwin Williams Products:
 - a. Prime coat shall be Macropoxy 646, Buff.
 - b. Finish coat shall be Macropoxy 646, White.
 3. International/Devco High Performance Coatings products:
 - a. Primer coat shall be Bar-Rust 233H.
 - b. Finish coat shall be Bar-Rust 233H.
- F. Colors: Finish colors not specified herein or on the Drawings will be selected by OWNER.
- G. Extra Materials: All opened paint containers shall be removed.
- H. All interior wet seams shall be sealed and flanged piping caulked. Caulk shall be Sika 1A, or equal. Existing cable roof penetrations shall be sealed with caulk.

2.03 REPAIR MATERIALS

- A. Special Vent:
1. Fail-safe vent designed to operate if screen frosts over shall be provided.
 2. Screens shall be reinforced with steel frames designed to lift off the bearing surfaces in the event the screens frost over and either positive or negative tank pressure is experienced. Screen blowout provisions during frost conditions shall not be provided. Vent shall be weather-protected type. Entrance of rain or snow shall be prevented by overhanging and overlapping protective cap protruding down to the bottom of the course screens.
 3. Stainless steel No. 16 mesh screens shall be provided.
 4. Vent shall have flanged bottom to bolt down onto existing 24-inch hatch on roof.
 5. Vent shall be equal in construction to those provided by CB&I Constructors and CT Services of Jeffersonville, Indiana.
- B. Piping Insulation:
1. Riser pipe shall be insulated with 2-inch-thick preformed cellular plastic insulation equal to Trymer Rigid Foam with all service jacket from valve pit to bottom of tank.
 2. 3-M filament reinforced tape 3 inches wide shall be used to fasten the insulation to the riser pipe and seal the joints.
 3. Insulation covering shall extend over all insulation and shall be equal to Childers aluminum jacket 0.016 inches thick with 1-inch minimum overlap.
 4. Aluminum or stainless steel sheet metal screws shall be used to hold the aluminum jacket.
- C. Screens:
1. Access tube screen shall be a rubber cover strip equal in construction as those provided by CB&I Constructors:
 2. Overflow pipe screen:
 - a. Stainless steel.
 - b. 4 mesh.
 - c. 20 gauge wire.
- D. Miscellaneous Electrical:
1. Replace all six light bulbs with new 150-watt bulbs.
 2. Replace double obstruction light bulbs with new bulbs of the same make and wattage.

PART 3-EXECUTION**3.01 PHYSICAL REPAIRS**

- A. All cathodic protection equipment inside the interior wet portion of the tank shall be removed before starting any other repairs or painting and replaced after painting is complete.
1. CONTRACTOR shall have Corrpro Companies, Inc. verify operation of equipment prior to removal. If Corrpro determines that repairs are required, OWNER shall work with Corrpro to complete repairs. If Corrpro finds existing equipment working properly, then CONTRACTOR shall proceed with removal of equipment and will be responsible for any damage and repairs necessary for the remainder of the project.
 2. All damaged equipment shall be replaced with new.
 3. New materials shall be provided by Corrpro Companies, Inc.
 4. Repair and/or installation shall be by Corrpro Companies, Inc.
 5. Following repair or replacement of cathodic protection equipment or materials, CONTRACTOR shall have Corrpro Companies, Inc. verify proper operation.
 6. The cathodic protection system will be placed in standby for between 8 and 12 months following final completion of the tank. The cathodic protection system will be permanently placed in service following the anniversary inspection of the tank interior. Permanent start-up of the system shall be completed as part of this project.
- B. Install Safety Climb Equipment:
1. Remove all existing fall protection equipment prior to painting.
 2. After all other work is completed, reinstall the safety climb equipment.
 3. Safety climb equipment shall be inspected and the installation shall be approved by a representative of the manufacturer.
- C. Fail-Safe Vent:
1. Remove existing bolted-down cover on 24-inch ventilation hatch on roof and bolt down new fail-safe vent. Flanged hatch is warped and shall be repaired as necessary to accept fail-safe vent. A gasket shall be provided between the flanges.
 2. Furnish and install new special vent in vertical.
 3. Vent shall be painted to match exterior of tank.
- D. Structural Steel:
1. Weld new roof plates over deteriorated steel. Remove deteriorated steel back to solid steel. Extent of roof plate repair will be determined by ENGINEER after blasting is completed.
 2. Weld new steel components for manway and failsafe vent according to Section 05500-Metal Fabrication in locations as shown on the drawings.
- E. Access Tube Vent Cover:
1. Provide rubber covering as specified in appropriate length and width to cover all the way around the access tube opening on top of the tank. No uncovered openings to interior wet shall remain.
 2. Retain rubber with a minimum of two stainless steel bands.
- F. Caulking: After painting, the interior wet roof plates and roof stiffener beams shall be seam-sealed with caulk.

- G. **Ladder Cables:** Existing cables attached to interior dry ladders shall be moved and reattached to provide 4 inches of clear space from ladder side rails and shall be considered Work incidental to the Contract. Attach cables to the ladder supports holding ladders to tank wall. Cables shall be routed along tank wall.
- H. **Interior Wet Roof Hatch:** Remove existing curb for interior wet roof hatch and replace with new 4-inch-tall steel curb in accordance with Section 05500-Metal Fabrications.
- I. **Piping Insulation:** After painting, install piping insulation as specified herein.
- J. **Communication Antenna:** Prior to painting and surface preparation, relocate supports for OWNER's communication antenna to allow interior wet manway cover to swing fully open. Antenna is to remain fully operational during all Work.

3.02 SURFACE PREPARATION

- A. **General:**
 - 1. All surfaces to be painted shall be prepared as specified herein and by the manufacturer's published data sheet and label directions. The objective shall be to obtain a uniform, clean, and dry surface.
 - 2. No painting shall be done before the prepared surfaces are observed by ENGINEER. Surfaces painted without such observation shall be abrasive-blasted clean and repainted.
 - 3. Prior to field blasting, a sample of the blast abrasive shall be provided to ENGINEER for pH testing. Additional samples of subsequent deliveries or batches of blast abrasive shall be provided to ENGINEER for testing.
 - 4. Quality of surface preparations listed below are considered a minimum. If paint manufacturer requires a better preparation for a particular application, it shall be considered a requirement of this specification.
- B. **Exterior:**
 - 1. Abrasive blast all surfaces to Commercial Blast Cleaning SSPC-SP6. Abrasive blast all welds to Near White Blast SSPC-SP 10.
 - 2. All abrasive blasting shall be performed within shrouding as specified herein. No visible dust emissions shall occur.
- C. **Interior Dry:**
 - 1. High-pressure wash the platforms, shaft, and access tube with a minimum of 2,000 psi. Remove old surface contamination, mildew growth, and poorly adhering coatings. The insulated base cone will not be prepared and repainted.
 - 2. Clean all abraded and rusted areas to Power Tool Cleaning to Bare Metal SSPC-SP 11 or abrasive blasting to Commercial Blast Cleaning SSPC-SP6. No visible dust emissions shall occur.
 - 3. All equipment in base cone shall be protected from blasting operations.
- D. **Interior Wet:** Abrasive blast all interior areas to Near White Grade SSPC-SP 10. No visible dust emissions shall occur.
- E. **Piping:**
 - 1. All piping shall be surface prepared and repainted. Remove all existing insulation.
 - 2. Clean all abraded and rusted areas to power tool cleaning to Bare Metal SSPC-SP 11 or abrasive blasting to Commercial Blast Cleaning SSPC-SP6.

3. Clean all new steel items by abrasive blasting in shop to near White SSPC-10.
4. Clean all new welds to Hand Tool SSPC-11 utilizing vacuum recovery equipment. No visible dust emissions shall occur.

F. Ferrous Metal:

1. All ferrous metal to be primed in the shop shall have all rust, dust, and scale as well as all other foreign substances, removed by abrasive blasting. Cleaned metal shall be primed immediately after cleaning to prevent new rusting.
2. All ferrous metals not primed in the shop shall be abrasive-blasted in the field prior to application of the primer.
3. Abrasive-blasting of metals in the shop shall be to Near White grade SSPC-SP 10.
4. Abrasive blasting of metals in the field for immersion service shall be to Near White grade SSPC-SP 10. Abrasive-blasting of metals in the field for nonimmersion service shall be to Commercial Grade SSPC-SP 6, except welds, which shall be to Near White Grade SSPC-SP 10.
5. All rough edges, weld seams, and sharp corners shall be ground to a curve. Weld spatter shall be chipped or ground off.
6. All oil and grease shall be removed in accordance with SSPC-SP 1. All surfaces shall have a light-sweep blast in the field. Dirt, dust, welding smoke, and other foreign matter shall be removed from the shop-primed areas before field coats are applied. It is the intent to remove 1/2 to 1 mil of primer from all surfaces.
7. Prior to finish coating, all primed areas that are damaged shall be cleaned and spot-primed.

- G. Ductile iron piping and fittings shall be solvent-wiped and abrasive-blasted in accordance with National Association of Pipe Fabricators NAPF 500-3.

H. Concrete:

1. All concrete and concrete block surfaces shall be painted. Surfaces shall be cleaned of all form oil, curing compound, and other foreign matter.
2. All concrete and concrete block walls, floors, and ceilings shall be abrasive-brush-blast cleaned in order to prepare the surfaces for adherence of the painting systems as specified. Acid etching will only be permitted when brush-blasting is impractical. Resulting surface shall have a toothed or grainy texture.
3. Paint manufacturer shall observe and approve the surface preparation method and the prepared surface prior to painting.
4. After cleaning, the surface shall be washed and all dust, sand, and loose particles shall be removed by vacuuming. If CONTRACTOR elects to blow the surfaces off with air, it shall be oil-free air, and the methods shall conform to OSHA requirements.

3.03 APPLICATION

- A. Materials shall be delivered to the site in original containers with labels intact and seals unbroken.
- B. All materials shall be used as specified by the manufacturer's published data sheets and label directions.
- C. Relative humidity conditions as specified by the paint manufacturer's data sheet shall be adhered to. This includes times in which supplemental heat is used.

- D. CONTRACTOR shall dry heat and ventilate as needed to obtain painting conditions recommended by the paint manufacturer.
- E. No unprotected, unheated exterior painting shall be undertaken when damp weather appears probable, nor when the temperature of the substrate is within 5°F of the minimum specified on the paint manufacturer's data sheet.
- F. No paint shall be applied on a wet or damp surface and in no case until the preceding coat is dry and hard. Each coat shall be allowed to dry in accordance with manufacturer's data sheets before the next coat is applied.
- G. Drying time shall be construed to mean "under normal conditions." Where conditions are other than normal because of the weather, or because painting must be done in confined spaces, longer drying times will be necessary.
- H. Additional coats of paint shall not be applied, nor shall units be returned to service until paints are thoroughly dry and cured.
- I. Steel that will be inaccessible in the completed work shall receive the final coat before enclosure.
- J. Paint shall be applied to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, or other surface imperfections will not be acceptable. Tops and bottoms of walls and areas that are "cut in" by brush prior to rolling shall have a uniform appearance in comparison with adjoining surfaces.
- K. Crevices and other hard to apply areas shall be backrolled/backbrushed in conjunction with application of the field-applied primer or intermediate coats. This includes, but is not limited to, between pipe flanges, pipe flange/pipe barrel joints, equipment fittings, and other narrow openings.
- L. Drop cloths shall be used in all areas where painting is done to fully protect other surfaces.
- M. Oily rags and waste must be removed from the site each night or kept in an appropriate metal container.
- N. Zinc-rich primer used on the exterior shall be continuously agitated during application.

3.04 PAINT SCHEDULE

- A. General:
 - 1. The painter shall use some discretion in what should and should not be painted. Do not paint over labels and motor information, bronze or brass, machined surfaces, moving parts where painting may impair movement, hot surfaces which may peel, etc. If in doubt whether a part should be painted, ask engineer.
 - 2. At the completion of the project, all painted surfaces that have been damaged shall be repainted or touched up.
 - 3. The elevated tank shall be painted in accordance with the following schedule and in accordance with the paint manufacturer's recommendations.
 - 4. All exterior painting shall be performed inside the shroud used for abrasive blasting.

B. Coverage:

1. Tnemec Products:

	Sq. Ft.** Coverage	Dry Mil Thickness Per Coat
Series N140 Pota-Pox Plus		
Steel Interior Wet and Dry Interior Primer	---	4.0
Steel Interior Wet Intermediate Coat	---	5.0
Steel Interior Wet and Dry Finish Coat	---	5.0
Steel Exterior Intermediate Coat	---	3.0
Masonry Valve Room (Exterior) and Ductile Iron Piping, Primer Coat	---	5.0
Masonry Valve Room (Exterior) and Ductile Iron Piping, Finish Coat	---	5.0
94 H ₂ O Hydro-Zinc		
Exterior Steel Primer	---	3.0
Series 73 Endura-Shield		
Preliminary Color Coat	---	2.0
Intermediate Coat-Bid Alternative No. 1	---	2.5
Series 1074 UV Endura-Shield Finish Coat and Logo	---	2.0
Series V700 HydroFlon Finish coat and Logo-Bid Alternative No. 1		2.5

2. Sherwin Williams Products:

	Sq. Ft.** Coverage	Dry Mil Thickness Per Coat
Macropoxy 646 PW		
Steel Interior Wet Primer	---	4.0
Steel Interior Wet Intermediate Coat	---	5.0
Steel Interior Wet and Dry Finish Coat	---	5.0
Steel Exterior Intermediate Coat	---	3.0
Masonry Valve Room (Exterior) and Ductile Iron Piping, Primer Coat	---	5.0
Masonry Valve Room (Exterior) and Ductile Iron Piping, Finish Coat	---	5.0
Corothane I Galvapak Zinc Primer		
Steel Exterior Primer Coat	---	3.0
Steel Interior Dry Primer Coat	---	3.0
Acrolon 218 HS Semi-Gloss		
Steel Exterior Preliminary Color Coat	---	2.0
Acrolon 218 HS Gloss		
Steel Exterior Finish Coat and Logo	---	2.0
Intermediate Coat-Bid Alternative No. 2.	---	2.5
FluoroKem Finish Coat-Bid Alternative No. 1.	---	2.5

3. International/Devoe High Performance Coatings:

	Sq. Ft.** Coverage	Dry Mil Thickness Per Coat
Concrete Block and Wood Primer Coat	100	---
Concrete Block and Wood Finish Coat	160	---
Bar-Rust-233H	---	
Steel Interior Wet Primer	---	4.0
Steel Interior Wet Intermediate Coat	---	5.0
Steel Interior Wet Finish Coat	---	5.0
Steel Exterior Intermediate Coat	---	2.5
Steel Interior Dry Primer Coat	---	3.0
Steel Interior Dry Finish Coat	---	2.0
Masonry Valve Room (Exterior) and Ductile Iron Piping, Primer Coat	---	5.0
Masonry Valve Room (Exterior) and Ductile Iron Piping, Finish Coat	---	5.0
Catha-Coat 302H Primer	---	
Steel Exterior Primer Coat	---	3.0
Devthane 379	---	
Steel Exterior Preliminary Color Coat	---	2.0
Steel Exterior Finish Coat	---	2.5
Steel Exterior Finish Coat and Logo	---	2.0
Interzinc 52	---	
Zinc Primer (Alternative Bid No. 3)	---	3.0
Intergard 475 HS	---	
Intermediate Coat (Alternative Bid No. 3)	---	2.5
Interfine 1080	---	
Finish Coat (Alternative Bid No. 3)	---	2.5
Exterior Finish Coat Name and Logo (Alternative Bid No. 3)	---	2.0

4. The number of coats specified is based on spray application of the coatings. The specified film thickness is required regardless of the type of coating application. Roller or brush application requires two or more coats to obtain recommended film thickness. No allowance is made here for overspray, waste in handling, mixing, or application. Final total dry film thickness (DFT) shall be equal to that specified. Paint submittals shall note where roller or brush application is proposed and the paint manufacturer's recommendations of number of coats to achieve the required thickness shall be noted.
5. Primer, intermediate and/or final surface colors shall be of contrasting colors to assure coverage.

C. Paint Schedule:

1. The tank shall be painted by CONTRACTOR in accordance with the following schedule and in accordance with paint manufacturer's recommendation. It is the intent of these specifications that all ferrous metal items scheduled for painting be shop-primed. If items are not shop-coated, surfaces shall be prepared and painted in the field as specified. If any items of new construction are not listed, CONTRACTOR shall request paint system from ENGINEER, and the items shall be painted as part of this Contract without additional cost. All flanged piping annular spaces shall be filled with caulk prior to finish painting.
 - a. Shop Priming:
 - (1) Shop prime as soon as possible after cleaning and before any rusting occurs on the surface.
 - (2) Do not apply paint to edges of items to be welded in the field.
 - b. Field Painting:
 - (1) Primer: As soon as possible after cleaning and before any rusting occurs, prime all prepared surfaces. This may require two applications at seams and abraded areas if a roller or brush is used. Prime all exterior areas by spray.
 - (2) Second Coat (Finish Coat for Interior Dry): Apply one full coat. Touch up any areas of less than total specified DFT.
 - (3) Interior Wet: Apply one finish coat. Recoat any areas of less than total specified DFT.
 - (4) Exterior: Apply a preliminary color coat and a finish coat. Recoat any areas of less than total specified DFT.
 - (5) The name and logo shall be painted following the orientation on the drawings. Location shall be as requested by OWNER. Apply two finish coats to obtain at least 3.0 mils total DFT.
 - (6) See Drawing 3 bound in the back of these specifications for painting scheme.
2. Aluminum Items: Exposed areas of structural items such as vents, railings, and grating shall not be painted.
3. Piping Insulation: Aluminum covering shall not be painted. All piping under insulation shall be painted.
4. Electrical Components, including Breaker, Meter, and Control Boxes shall not be painted. Cathodic protection equipment; control equipment, including telephone or telemetering equipment, presently painted shall be painted.

3.05 FIELD QUALITY CONTROL

- A. Examination of work on the site by the paint manufacturer's representative shall be performed when requested by ENGINEER.
- B. Dry mil thickness shall conform to those specified. Mil test measurement of steel shall conform to SSPC and ASTM D1186.
- C. The coatings listed will provide the mil thickness given when applied at the coverages listed. Upon the request of ENGINEER, such surfaces shall be checked by the painter with a calibrated mil thickness gauge and any deficiencies found in the film shall be remedied by additional coat(s) at the expense of CONTRACTOR.
- D. All welding shall be completed by an AWS-certified welder. Provide copies of certification prior to work beginning.

- E. On masonry, application rates will vary according to surface texture; however, in no case shall the manufacturer's stated coverage rate be exceeded. On porous surfaces, it shall be the painter's responsibility to achieve a protective and decorative finish either by decreasing the coverage rate or by applying additional coats of paint.

3.06 CLEANING AND DISINFECTION

- A. CONTRACTOR shall sterilize tank to provide tank surface that is free from bacteria. The sterilization procedure shall conform to Chlorination Method 3 as described in AWWA C652 and shall be performed in conformance with the paint manufacturer's recommended cure times.
- B. In general, the tank shall be filled to 5% capacity and chlorine added to achieve an initial solution of 50 mg/L available chlorine. This solution shall be held for at least 6 hours. The tank shall then be filled to overflow level and held for at least 24 hours.
- C. OWNER will take water samples for bacterial analysis. Two safe samples will be required to be obtained for conformance with sterilization procedure.
- D. The interior of the riser pipe shall also be flushed and sterilized. Riser pipe shall be flushed extensively prior to filling and sterilizing. CONTRACTOR shall select the method and submit it to ENGINEER for review.
- E. OWNER will provide, at no charge, water to sterilize and fill the tank.

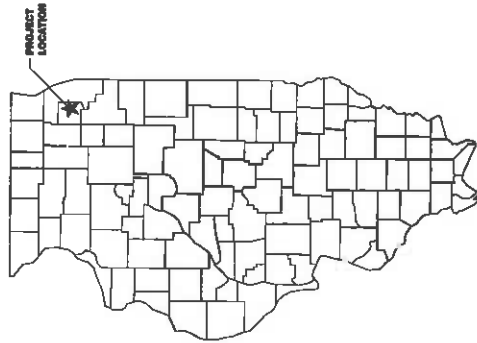
3.07 PROTECTION AND CLEANUP

- A. Any ground equipment shall be covered and protected from paint splatter, drips, and overspray.
- B. All stains and marks shall be removed from other surfaces upon completion of the work.

END OF SECTION

DRAWINGS

EXECUTIVE TANK REHABILITATION FOR THE VILLAGE OF WILLOWBROOK WILLOWBROOK, ILLINOIS

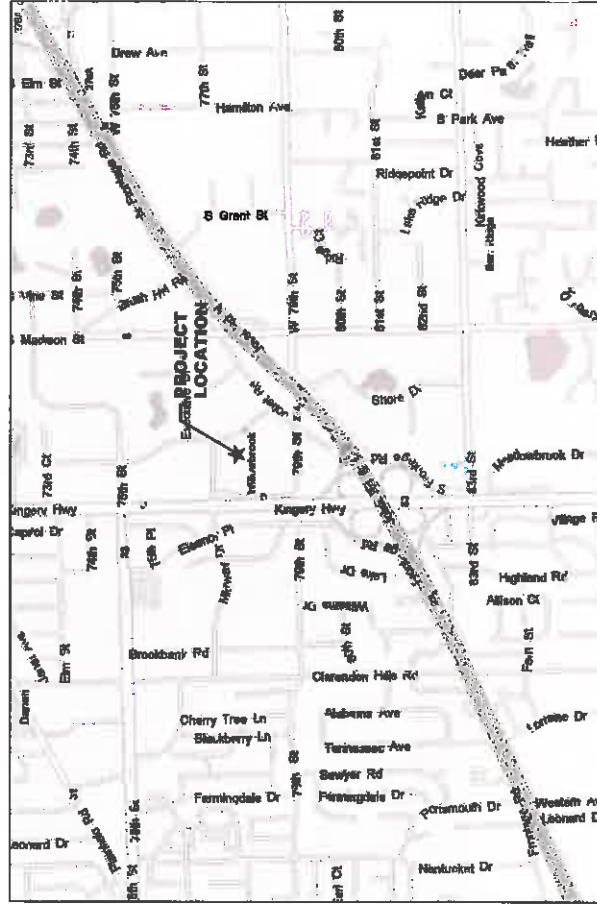


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UNDERGROUND UTILITIES
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BEFORE YOU EXCAVATE
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815 744-4200
815 744-4215 FAX
WWW.STRAND.COM
IDPR NO. 184-001273

CONTRACT 1-2014



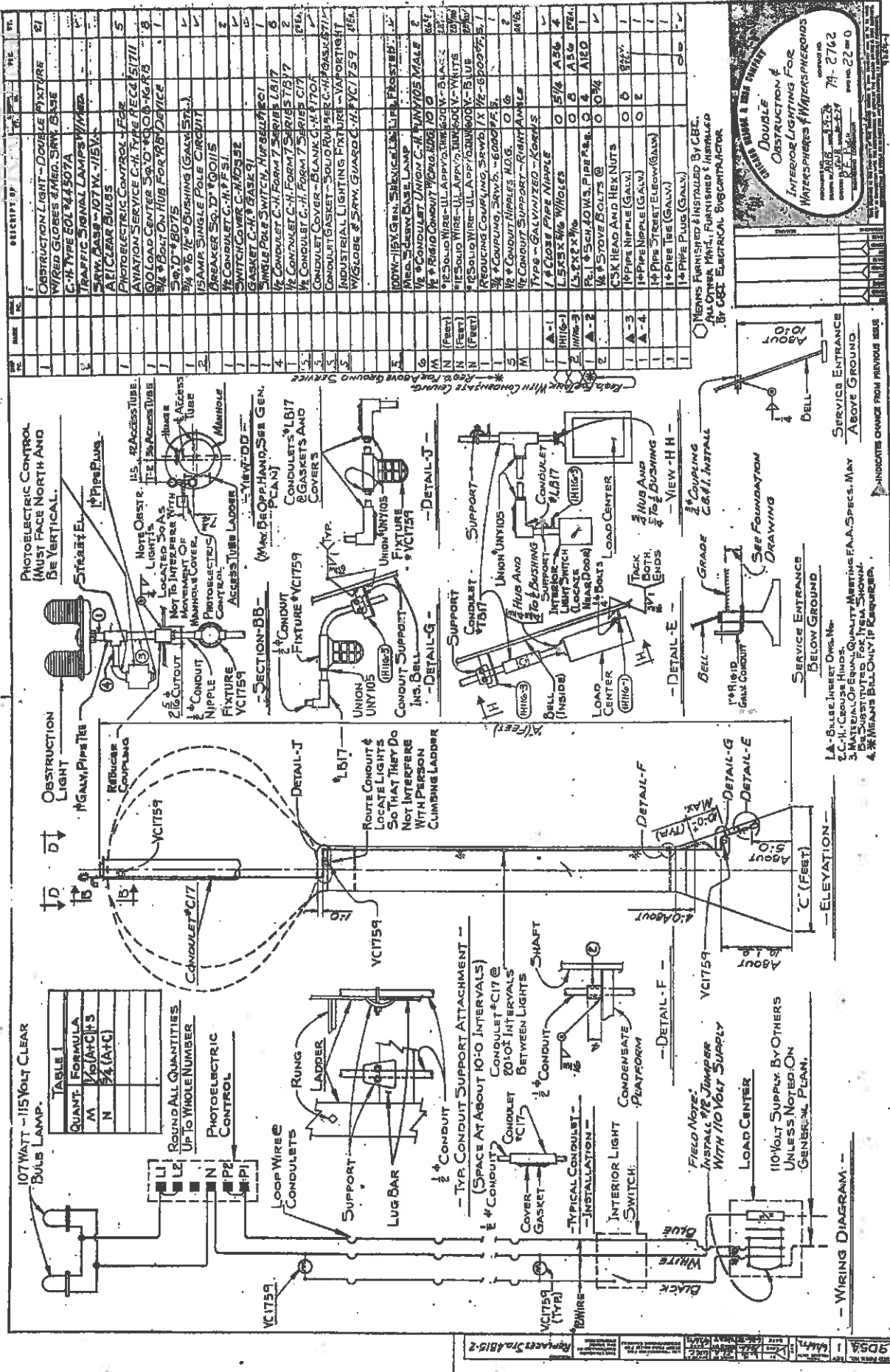
LOCATION MAP
NOT TO SCALE

SHEET NO.	TITLE
1	TITLE SHEET
2	SITE PLAN
3	TANK LOGS
4	APPENDICES
5	7700 CUMLEY STREET WILLOWBROOK, IL 60137
6	SECTION 28
7	TOWNSHIP 38N RANGE 11E



— **REMARKS.**

APPENDIX



ITEM	DESCRIPTION	QTY	UNIT	REMARKS
1	OBSTRUCTION LIGHT - DOUBLE FIXTURE	2	EA	
2	WIRE GLOBES - 4" DIA. 150 WATT	4	EA	
3	TRAFFIC SIGNAL LAMP - 150 WATT	1	EA	
4	TRAFFIC SIGNAL LAMP - 150 WATT	1	EA	
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100	TRAFFIC SIGNAL LAMP - 150 WATT	1	EA	

DOUBLE OBSTRUCTION LIGHTING FOR INTERIOR LIGHTING FOR WATERPHEARS WATERPHEARS

74-2762

DATE: 10-1-54

BY: J. H. H. H.

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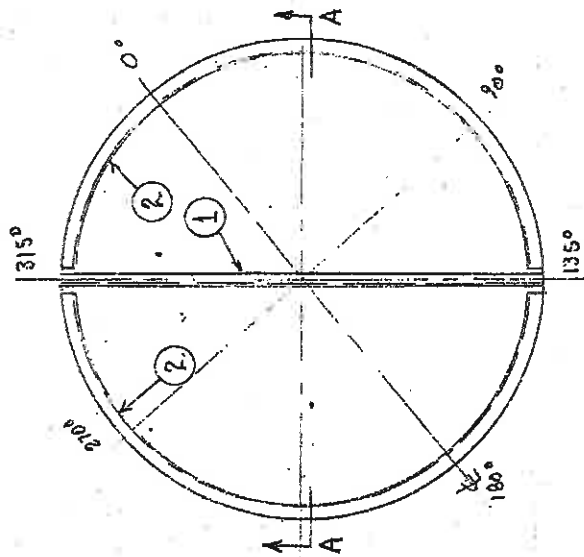
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REVISION: 98

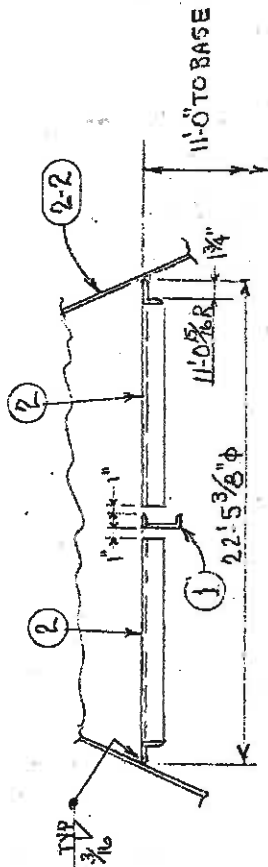
REVISION: 99

REVISION: 100

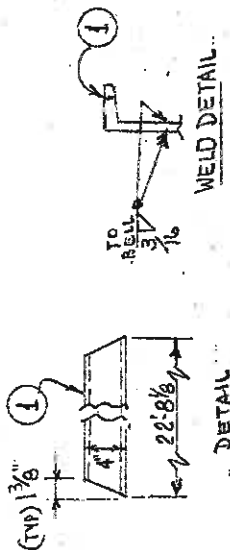
SHIP PC.	MARK	ASSEM. PC.	DESCRIPTION	LENGTH FT.	IN.	SPEC.	WT.
1	23-1		PC. C.4" x 54# 5/8 E	22	8 1/8	A36	
2	23-2		L 2" x 2" x 1/4" FIN (ON BALL R)	34	2 3/8	A36	
			(ROLL RAD=11'-0 15/16) SHR 36 2				



PLAN



SECTION A-A



WELD DETAIL

{ FALSE CEILING BY GUST.
{ SUPTS. BY CBIC CO. }

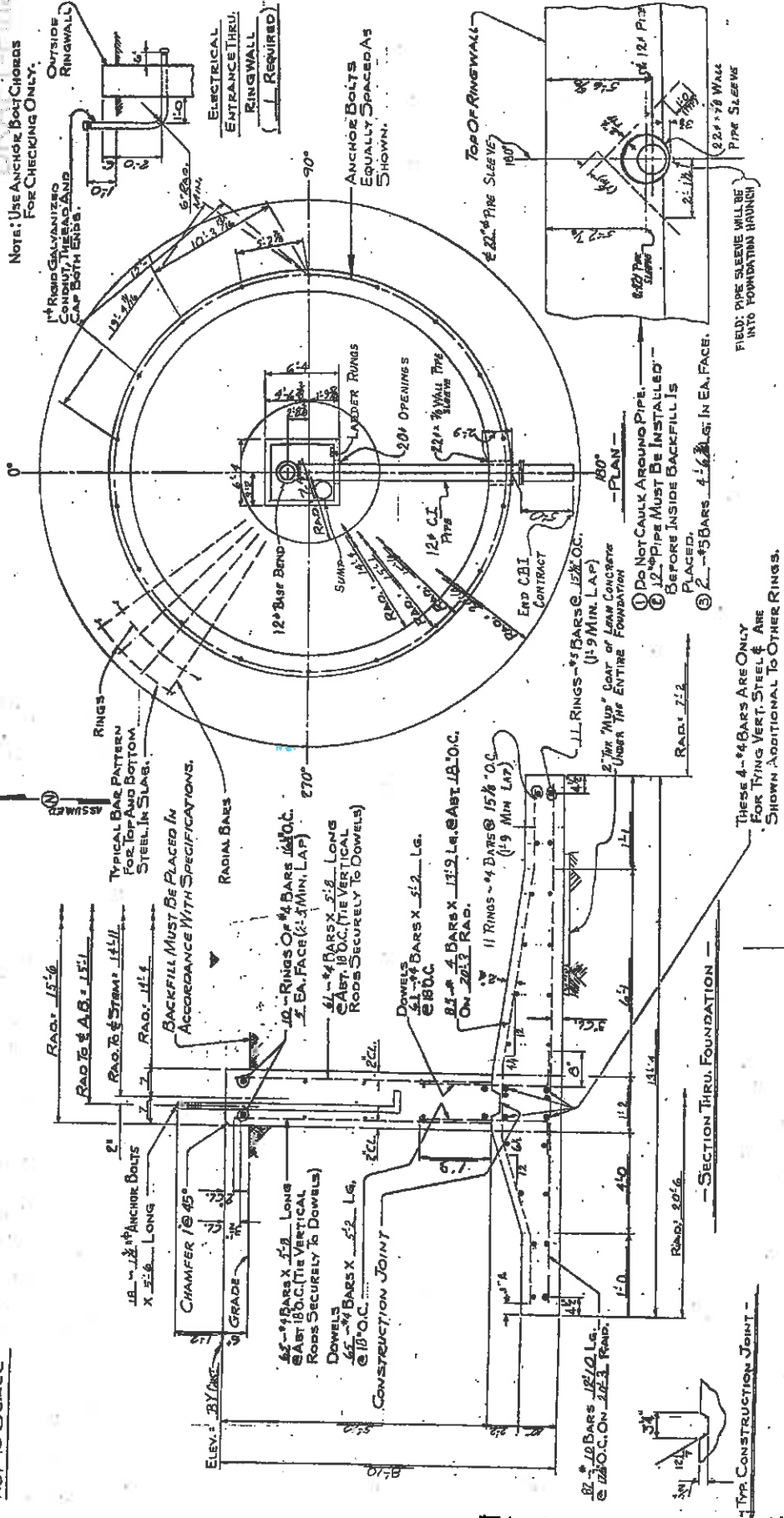
CHICAGO BRIDGE & IRON COMPANY

FALSE CEILING SUPTS.
500MG. WATERSPHEROID

PURCHASER'S NO. _____ CONTRACT NO. **74-2762**
 DRAWN BY **R. J. GUNTER** DATE **2/28/33**
 CHECKED BY **R. J. GUNTER** DATE **2/28/33**
 ENGINEERING COORDINATOR **R. J. GUNTER** DWG NO. **23** MAY **0**

THIS DRAWING IS THE PROPERTY OF THE CHICAGO BRIDGE & IRON COMPANY AND IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY INDICATED HEREON. NO REPRODUCTION IN WHOLE OR IN PART FOR ANY OTHER PURPOSE IS EXPRESSLY FORBIDDEN.

NOT TO SCALE



Work This Dwg. With Dwg. #F2

ESTIMATED FOUNDATION QUANTITIES

ITEM	Concrete (CY)	Reinforcing Steel (LBS)
FOUNDATION	104	9200
WALL	4.9	879
TOTAL	108.9 C.Y.	9,479 LBS

QUANTITIES ARE APPROXIMATE. FOUNDATION CONTRACTOR SHALL MAKE OWN ESTIMATE OF QUANTITIES FOR BIDDING AND/OR CONTRACTING.

TOLERANCES:
 Top of Ring Wall to be Trowelled Level and to be within 1/4" of the Theoretical Elevation.
 Anchor Bolts to be within 1/4" of Theoretical Position, to be Placed within 1/2" and with Protection Above the Top of Ring Wall within 1/2" of the Specified Height.

SPECIFICATIONS: See Specifications by JCI, 1-1-1958
 All Concrete to have 4000 P.S.I. Comp. Strength & in 28 Days Reinforcing Steel to have Min. Yield Strength of 40000 P.S.I. & conform to ASTM A618. All Material Unless Otherwise Noted to be Furnished & Installed by FOUNDATION CONTRACTOR.
 Anchor Bolts are furnished by C.S. & I. (8 PER AC 308-11) PIPE COVER: 1/2"

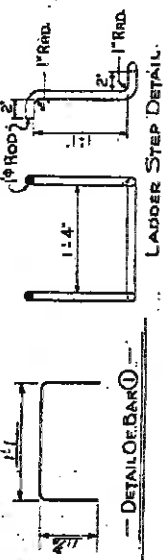
TABLE OF LOADINGS

ITEM	LOAD	STRESS (P.S.I.)
WATER	423.8	1.1
METAL	32.07	1.1
CONCRETE	123.36	1.1
TOTAL	459.23	1.1
DETERMINING MOMENT	68.19	1.1
MAX. TOB PRESSURE W/WIND	4268.5	1.1

-PIPE OPENING IN RING WALL-

FOUNDATION PLAN
 FOR
 500 MG. WATERSPHEROID
 WILLOW BROOK, ILLINOIS
 PROJECT NO. 74-2762
 DRAWING NO. 74-2762-1
 DATE 11-1-58
 ENGINEER E. J. BURTON
 CHECKED BY J. BURTON
 SCALE 1/8" = 1'-0"

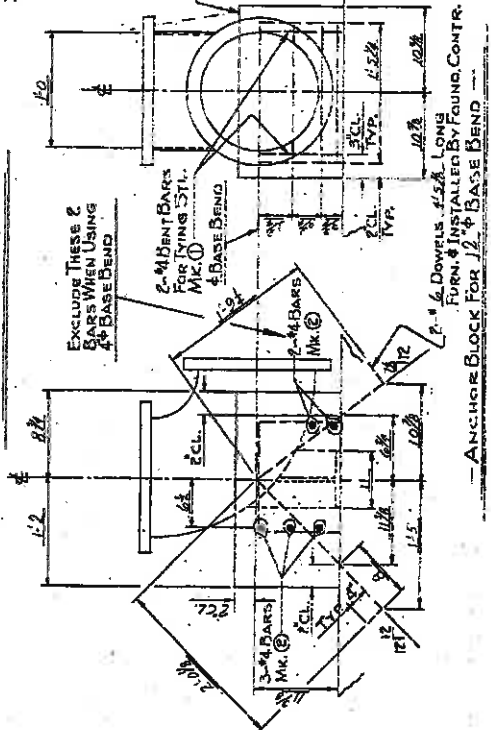
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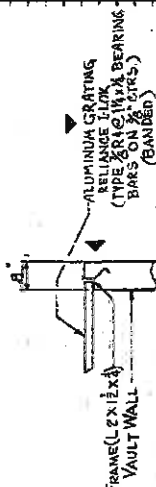
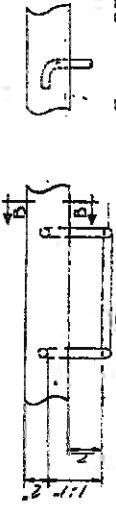
NOTE:
THIS MATERIAL
FURNISHED & INSTALLED
BY C.B.#1.

NO.	DATE	DESCRIPTION	BY	CHKD.	APPROV.
2	12-1	1/4" REIN. ROD (BENT)	2	11/22	11/5/50
3	12-2	1/4" REIN. ROD	1	11/22	11/5/50

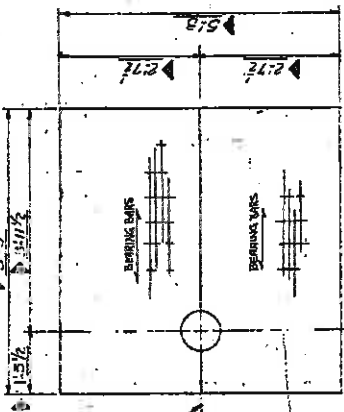
*USE 3 FOR 4\"/>



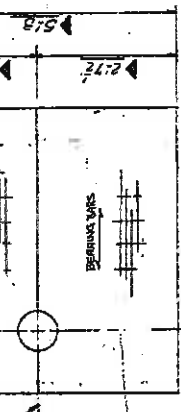
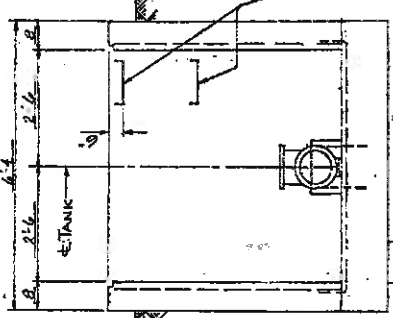
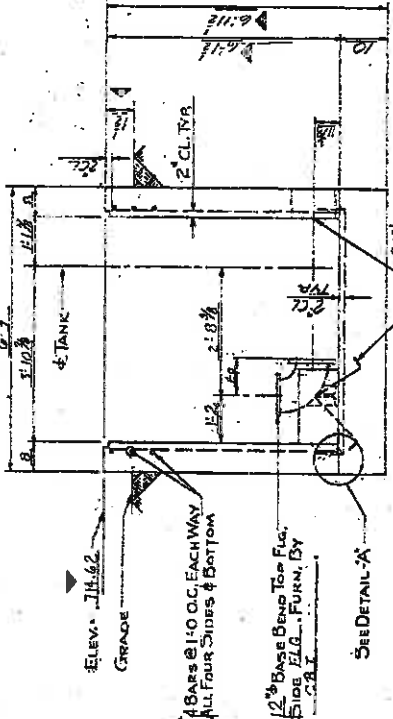
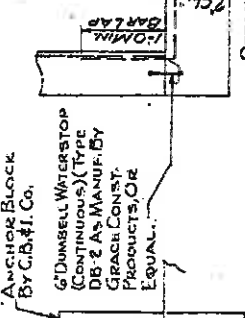
SECTION-BB -
LADDER STEP INSTALLATION -
PLAN -



TYPICAL SECTION THRU TOP OF
RINGWALL



DETAIL 'A'
(TYPICAL)



PLAN OF AL COVER (GAINING RELIANCE JOINT)
(FURNISHED BY FOUNDATION CONTRACTOR)

6 - LADDER STEPS
1:10 % (NOTE: SEE
DWG. #1 FOR TRUE
ORIENTATION OF
STEPS)

* SUMP - 18\"/>

22\"/>

DOWELS BY FOUNDATION CONTRACTOR
(SEE DETAILS ABOVE)

WORK THIS DWG. WITH DWG. #1

SEALANT SUBMIT & TEST BEFORE

VALVE VAULT

FOR

WILLOWBROOK, ILLINOIS

DATE: 12-1-74

BY: [Signature]

CHKD: [Signature]

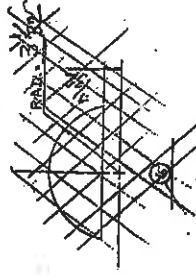
APPROV: [Signature]

74-2762

ROBELL & SONS

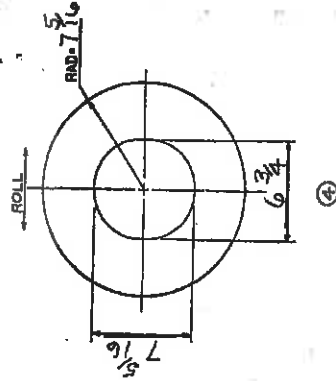
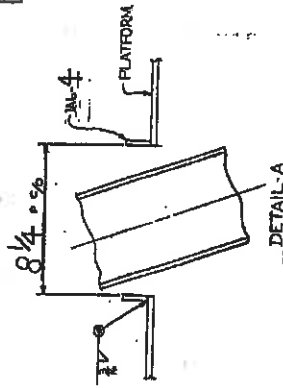
[illegible]

- GENERAL NOTES:
1- SEE PIPING & PLATFORM DWG. 20 FOR ORIENTATION &
PIPE SUPPORT DETAILS.
2- WORK THIS DWG. WITH STD. H15-1

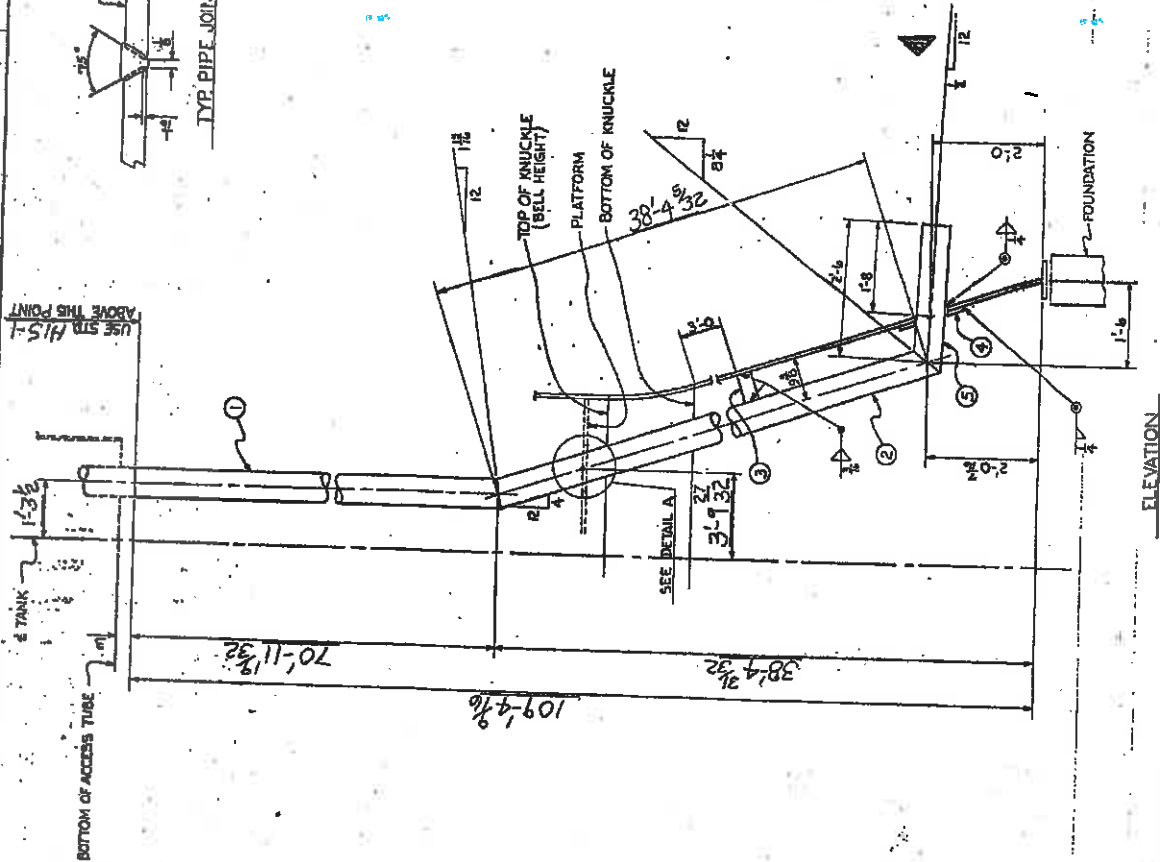


ARC GOUGE — CUTS.

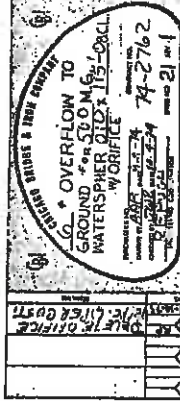
TYP. MITERED PIPE JOINT



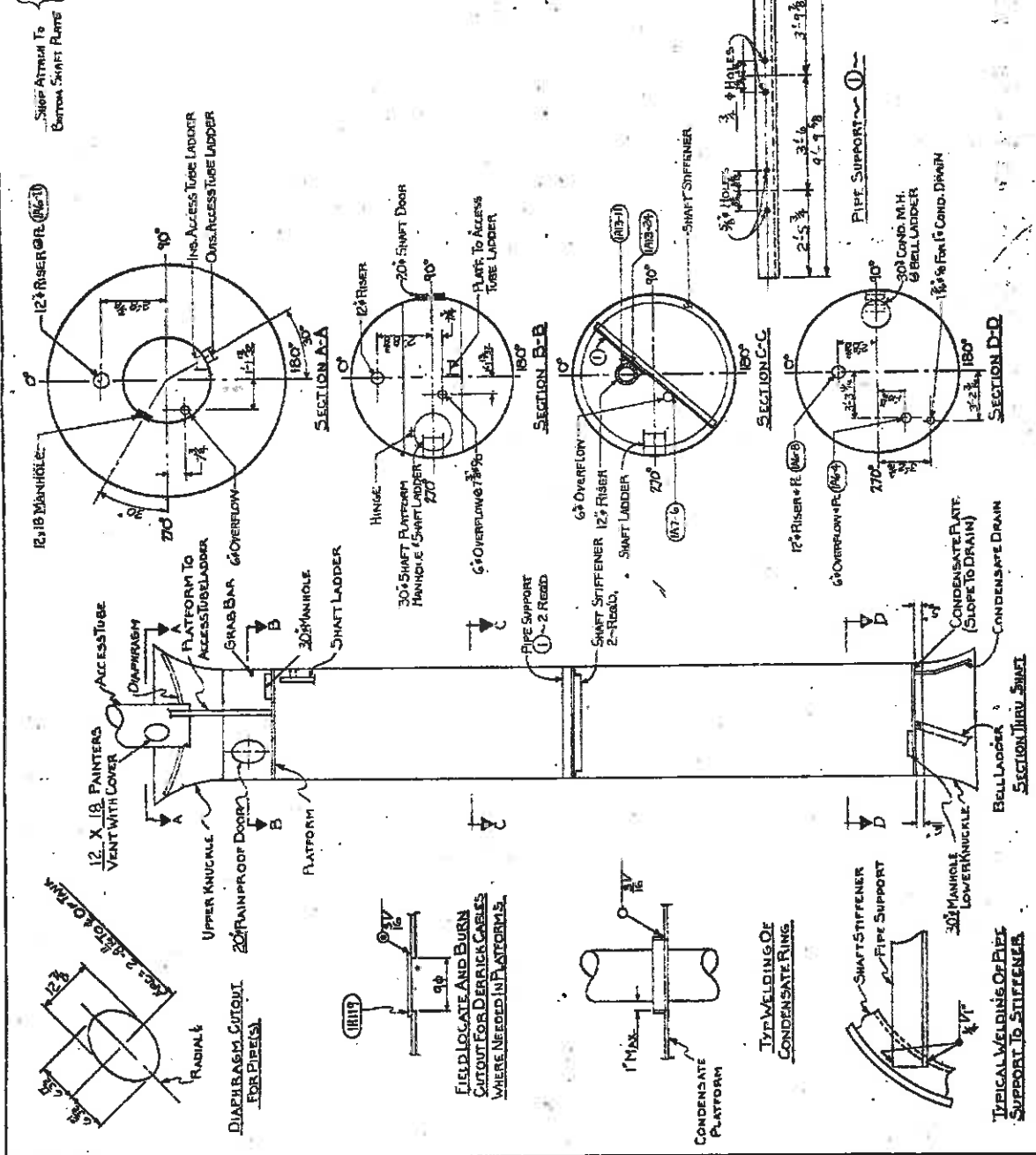
TYPE PIPE JOINT



ELEVATION



NO.	QTY.	DESCRIPTION	UNIT	REMARKS
1	1	CONDENSATE PLATFORM (BUILT UP)	1	
2	4	2" X 1/2" (Bolt)	4	2 3/4" A36
3	0	3" A516	0	
4	5	1 1/2" A36	5	
5	1	2" X 1/2" (Bolt)	1	
6	1	2" X 1/2" (Bolt)	1	
7	1	2" X 1/2" (Bolt)	1	
8	1	2" X 1/2" (Bolt)	1	
9	1	2" X 1/2" (Bolt)	1	
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95	1	2" X 1/2" (Bolt)	1	
96	1	2" X 1/2" (Bolt)	1	
97	1	2" X 1/2" (Bolt)	1	
98	1	2" X 1/2" (Bolt)	1	
99	1	2" X 1/2" (Bolt)	1	
100	1	2" X 1/2" (Bolt)	1	



GENERAL NOTES

1. ALL CUTOUTS IN SHAFT PLATFORMS AND DERRICK ARE TO BE MADE IN THE SHIP.
2. SEE GENERAL PLAN FOR LOCATION OF PIPE SUPPORT BRACKET IN SHIP.
3. MINIMUM SPACING OF PIPE SUPPORT BRACKETS IN SHIP TO BE 32".
4. SEE GENERAL PLAN FOR NUMBER OF STIFFENERS & SHAFT STD. FOR LOCATION.

ORIENTATION OF ACCESSORIES IN SHAFT

74-2762

100% INSPECTION

100% WELDING

100% PAINTING

100% FINISHING

100% CLEANING

100% TESTING

100% RECORDING

100% REPORTING

100% APPROVAL

100% SIGNATURE

100% DATE

100% LOCATION

100% SCALE

100% UNIT

100% SYSTEM

100% METHOD

100% MATERIAL

100% EQUIPMENT

100% PERSONNEL

100% SAFETY

100% HEALTH

100% ENVIRONMENT

100% SOCIETY

100% ECONOMY

100% QUALITY

100% QUANTITY

100% PRICE

100% TIME

100% RISK

100% COMPLIANCE

100% LEGALITY

100% ETHICS

100% INTEGRITY

100% HONESTY

100% FAIRNESS

100% RESPECT

100% TOLERANCE

100% PATIENCE

100% KINDNESS

100% GENTLENESS

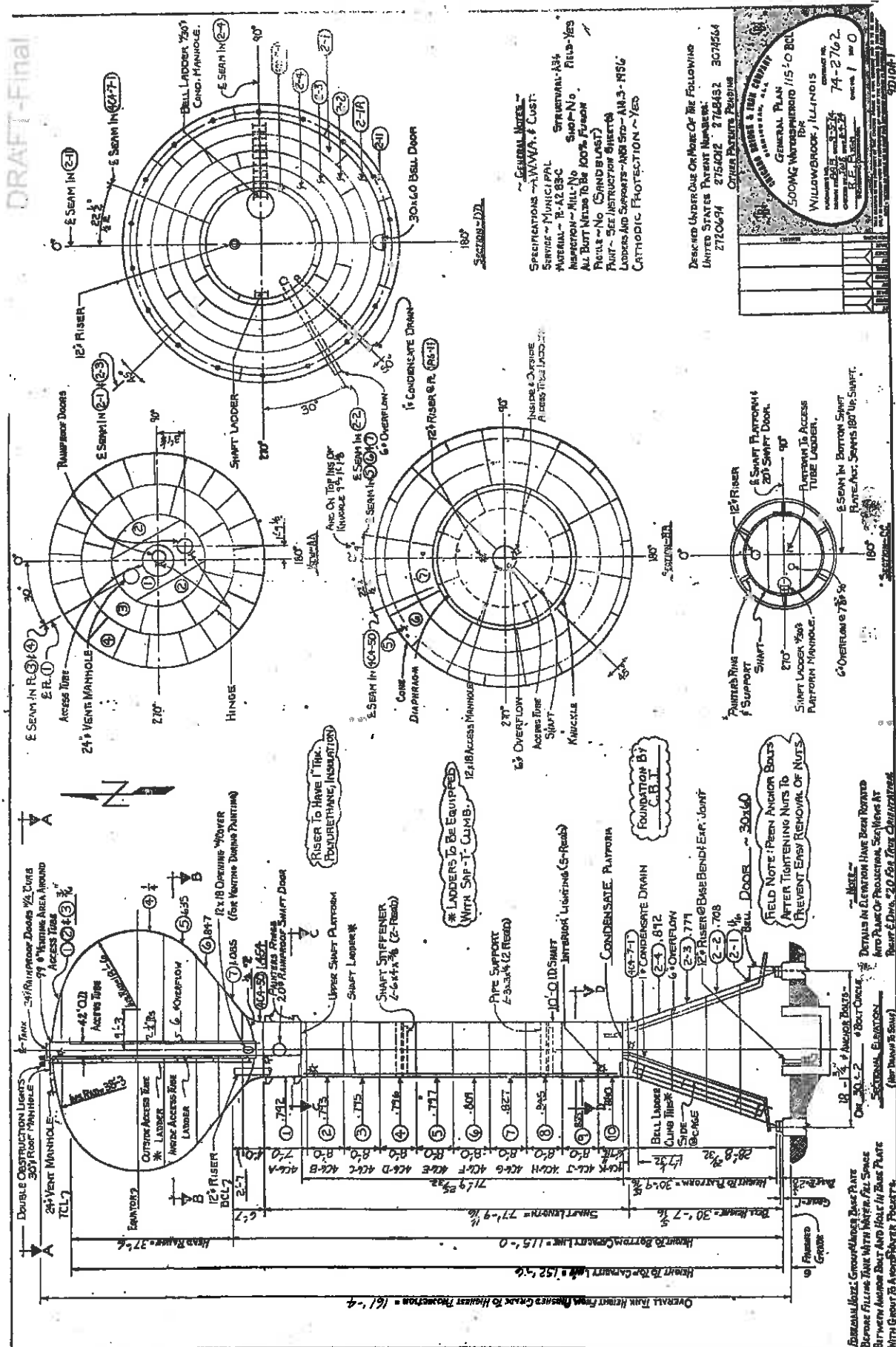
100% MERCY

100% GRACE

100% PEACE

100% JOY

100% LOVE



~General Notes~
SPECIFICATIONS - AWWA # CUST:
SERVICE - MUNICIPAL
MATERIAL - R-42 83-C
ANESTHESIA - MIL-N
ALL BUT NUTS TO BE 100% FUSION
PUMP - NO (SHAND BLUES)
PUMP - SEE INSTRUCTIONS SHEET
LOADS AND SUPPORTS - AND STD - AN-3-195C
CATHODIC PROTECTION - YES

DESIGNED UNDER ONE OR MORE OF THE FOLLOWING
UNITED STATES PATENT NUMBERS:
2720694 2754012 2768432 3074564

[illegible]

DRAFT-Final

Professional

Engineering

Services

Executive
Elevated Tank
Observation

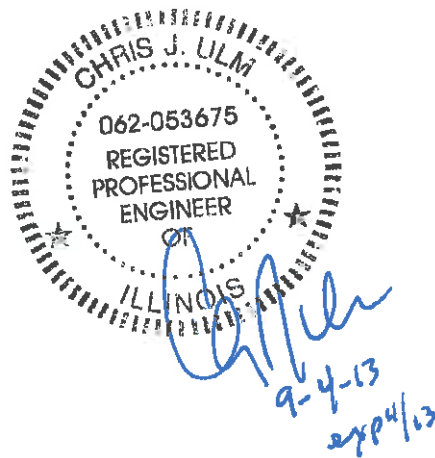
Report

Village of
Willowbrook, IL
August 2013



Report for Village of Willowbrook, Illinois

Executive Elevated Tank Observation Report



Prepared by:

STRAND ASSOCIATES, INC.®
IDFPR No. 184-001273
1170 South Houbolt Road
Joliet, IL 60431
www.strand.com
August 2013



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Page No.
or Following

ELEVATED TANK OBSERVATION REPORT

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Piping	3
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Ladders	4
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TABLES

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10/10/2020 10:10:10 AM

10/10/2020

10/10/2020

10/10/2020

10/10/2020

BACKGROUND INFORMATION

Inspector: Steve Kluesner
Anand Sridhar

Observation Date: August 15, 2013

Location: 7760 South Quincy Street
Willowbrook, IL 60527

Nameplate Data: Horton Waterspheroid,
Constructed by Chicago
Bridge and Iron Company
(CB&I)
Na-Con, Inc. in 1975
Contract No. 74-2762U
Height to Bottom = 115 feet

Capacity: 500,000 gallons

"WILLOWBROOK" is written in block lettering with single-line shadowing on one side of the tank. There is a blue-green willow tree logo on the tank.

The tank was less than one-half full at the time of observation. This was determined by pressure gauges (showing 53 pounds per square inch) in the control valve vault on-site and from observations of the interior wet.

Photographs of the structure and surrounding area were taken.

SITE INFORMATION**A. Access to Site**

The main entrance is located on the same site as the Police Department and Village Hall (7760 Quincy Street). The tank is located at the southwest corner of the site, and the base cone on the north and east sides of the tank is located approximately 5 feet from the parking lot. There is no gate at the entrance.



Elevated Water Tank



South Elevation

B. Surrounding Structures

The tower is surrounded on the north and east by parking lots used by the Police Department and Village Hall. The north parking lot has concrete pavement that transitions to asphalt in the east parking lot.

West of the tower is a grassy area where a stainless steel enclosure housing electrical power distribution components is located. Approximately 30 feet west of the tower is another parking lot that appears to be used by an industrial business. There is also an electrical enclosure (24 inches wide by 72 inches high by 72 inches long on a concrete base) located approximately 10 feet west of the tank.

The south side of the tower is grass-covered and contains two manholes, a fire hydrant, and coniferous trees located approximately 15 feet from the base of the cone, and a detention pond (currently dry).

FOUNDATION

Overall, the foundation is weathered but appears to be in good condition. There are no indications of differential foundation settlement. No soil is eroded nor is there visible undermining of the foundation. The concrete ring wall extends 2 to 3 inches outward from the grout surface.

The tower rests on a concrete foundation. The elevation of the top of the foundation varies from 3 to 4 inches above grade in the north to at grade on the east, west, and south portions. The concrete foundation exhibits minor spalling. The grout at the base appears to be in overall good condition with a few instances of minor spalling.



Exterior Base

Most of the 18 anchor bolts exhibit corrosion. The bolts are 1 3/4-inch diameter with 4 3/4-inch by 6 1/4-inch chairs.

There are no indications of underground pipe leaks or visible saturation. There is a 4-foot 2-inch by 6-foot 2-inch pit cut next to the water tower foundation on the southwest corner for drainage of the overflow. The pit is filled with large stones.

VALVE VAULT AND CONTROL ROOM

The valve vault is inside the pedestal within a control room. The control room is constructed of wood with an 81-inch-tall by 31-inch-wide opening secured by a door. The control room is 11 1/2 feet 6 inches by 12 feet 1 inch. Inside the control room are the Police Department communication and control equipment and the back-up servers for the Village Hall. The control room is climate-controlled with air conditioning. There are four fluorescent tube lights and 14



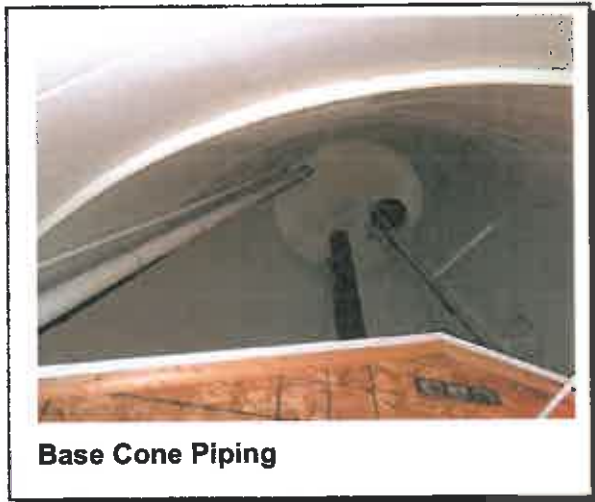
Interior View of the Control Room

outlets. The water main pipe appears to be 12-inch diameter and enters the tower and vault from the south side. There is a fire extinguisher located outside the control room.

The actual valve vault pit located in the control room is 5 feet by 5 feet by 5 feet 8 inches deep. The valve vault pit houses a sump pump and expansion joint. The expansion joint appears to be in good condition. The base of the vault appears to be dry in some areas and damp in others. There is no visible condensation or standing water. The vault is secured by a steel/aluminum grating that was difficult to remove. There was no control valve observed on the piping. The pressure gauge on the riser pipe is a USA pressure gauge that read 54 psi. A WIKA cable communicates this reading to the supervisory control and data acquisition panel.

PIPING

The riser pipe is 12 inches in diameter and of either cast or ductile iron that transitions to steel in the valve vault. It is covered with 1-inch-thick insulation. The insulation appears in poor condition. The paint inside the insulation, where visible, also appears to be in poor condition.



Base Cone Piping



Overflow Piping

The 2-inch Schedule 40 PVC sump pump piping exits the control room through the north wall and through the north side of the pedestal.

The power conduits enter the pedestal through two ports at the west corner for Police Department and Village Hall communication. The power conduit for the tank control enters the north side of the pedestal.

There is a condensate pipe of 1-inch steel that transitions to 1.5-inch PVC, which then transitions to a 1-inch penetration at the southwest corner of the pedestal.

The overflow pipe has a diameter of 6 inches and currently appears to be in good condition. The pipe is screened with a No. 4 mesh, which is attached by a flap gate. The screen appears in good condition. The flap gate is mildly corroded but appears in good operating condition. The screen overhangs a 19-inch air break before a riprap splash pad.

ACCESSORIES**A. Electrical Service**

The lighting panel is located on the north side of the interior dry base cone. The underground cable from the east side of the tank penetrates into the base cone, continues around the interior perimeter of the tank, and enters the north side of the control room. The electrical service enters the north side of the tank, and the lighting and cathodic protection panels are located on the north wall of the base cone.

There are two power conduit and communication wires that enter on the west side of the pedestal that then enter the west side of the control room.

B. Cathodic Protection

The cathodic protection panel is located on the north side of the tank. The panel is a made by Corpro and is a TASC VIII Cathodic Protection Rectifier. The model is a TASCA 20-5I and the Serial Number is C-010906. It is a hanging-type system.

C. Communication Additions

The Police Department and Village Hall currently have communication wire and equipment mounted on top of the tank. There are no cellular providers using the tank.

LADDERS**A. Lower Ladder**

The lower ladder from the base to the lower platform has a rod-style safety climb system. The climbing rail appears to be in good condition. The ladder is 16 inches wide and the square rungs are spaced 12 inches apart. The ladder in the base cone has a safety cage. The safety climbing device stops at the bottom of the condensate platform.

B. Shaft Ladder

The shaft ladder has a rod-style safety climb system but does not have a cage. The shaft ladder terminates at the upper catwalk platform. The ladder is 16 inches wide with square rungs spaced 12 inches apart. The ladder appears to be in good condition. Cables are routed along the ladder and are more than 4 inches away from the ladder side rails.

C. Access Tube Ladder

The ladder in the access tube has a rod-style safety climb system but does not have a safety cage. The ladder is 16 inches wide with square rungs spaced 12 inches apart. The ladder appears to be in good condition. Cables are routed along the ladder and are within 4 inches of the ladder side rails.

D. Interior Wet Ladder

The ladder in the water containment portion of the tank is 16 inches wide with square rungs spaced 12 inches apart. The ladder has a rod-style safety climb system. The ladder in the interior wet appears to be in fair condition. There is significant rust visible and some metal loss on the top rungs.

DOORS, HATCHES, AND PLATFORMS**A. Doors**

The exterior door is a 1/4-inch steel plate that is 31 inches wide by 60 inches tall. There is a padlock hasp to secure the door. The top of the door is arched. The door is secured with a keyed padlock. The door appears to be in good condition.

B. Platform Hatches

There is a 30-inch-diameter hatch located in both the condensate platform and upper catwalk. Each hatch includes a 4-inch curb with a hinged lid that has a 2-inch overlap.

C. Shaft Hatch

There is a 20-inch-diameter painters' access hatch at the top of the shaft, accessible from the upper catwalk. The painters' hatch does not have a curb or an overlapping lid. The lid is retained by a chain and bolt.

D. Access Tube

The access tube is 42 inches in diameter. The access tube appears generally in good condition. There is minor rusting at fittings and appurtenances. There is an oval water containment hatch located at the base of the access tube near the upper catwalk. The hatch is approximately 24 inches by 18 inches. The hatch is secured with bolted-on brackets. Cables are routed over the hatch.

There is a 30-inch-diameter access tube hatch at the top of the tank. The hatch extends out from the access tube with a 4-inch curb and lid with 2-inch overlap.

E. Roof Hatches

There are two hatches on the roof for access into the water containment portion of the tank. There is one 30-inch-diameter interior wet access hatch with 4-inch curb and 2-inch overlapping cover. The lid was not secured. Supports from communication equipment on the tank roof limits the swing of the cover to less than 90 degrees. There is some significant metal loss noted on the interior wet curb.

There is a 24-inch-diameter bolt-down painters' access hatch on top of the tank. There is a gasket located between the flange and bolt-down plate. The gasket appears to be in poor condition and the lid is warped.



Interior Wet Roof Hatch



Bolted Flange Roof Hatch

F. Tank Vent

There is an approximate 1-inch air gap between the access tube and the tank roof. There is an approximate 6-inch curb from the tank roof. The air gap is not screened. The top of the access tube overhangs over the air gap for protection.

G. Condensate Platform

The condensate platform paint system appears to be failing and there are several significant areas of rust. The fill pipe insulation is failing and pipe itself also appears to be rusting. Conduit supports and weld seams in this area exhibit areas of rust as well.

Black electric cables and white conduits penetrate the condensate platform behind the fill pipe. They are protected by a 4-inch curb welded to the floor on all sides. The cables are attached by wire ties.

Cellular cable penetrations are protected by a 4-inch-tall curb on the floor of the platform. The curb is welded to the floor on all sides, and damage to the coating has not been repaired.



Condensate Platform

The light immediately above the condensate platform is not operational.

H. Upper Catwalk

The upper catwalk is in fair condition. The paint system appears to be failing and exhibits significant rust.

The railing at the upper catwalk is 42 inches high to the top rail. A midrail and a 4-inch toe plate are also provided.



MISCELLANEOUS

- A. There are ten cathodic protection cover plates of approximately 4-inch diameter on the tank roof. All platelets appear to be secured tightly to the tank roof.
- B. Incandescent light bulbs are in the following locations: one light at the top of the access tube, one light at the top side of the upper platform, one light at the top of the stem just below the top platform, and one light (not working) at the condensate platform. There is one halogen light and one incandescent light at the base of the pedestal.

PAINT HISTORY

It was reported that the tank was last painted in 2001. The specifications for the work completed in 2001 included the following.

A. Exterior

The tank exterior was surface-prepared to Steel Structures Painting Council (SSPC) SSPC-SP6 and primed with a zinc-rich primer, Tnemec Series 91 H2O Hydro-Zinc. An epoxy intermediate coat of Tnemec Series 66 Hi-Build Epoxoline was applied, followed by a urethane finish color coat of Tnemec Series 73 Endura-Shield. A full clear coat of Tnemec Series 76 Endura-Clear was applied over the finish color coat. All surface preparation and painting work were completed within a containment shroud.

B. Interior Dry

The tank interior dry was surface-prepared to SSPC-SP6 and primed with Tnemec Series 65 Poxi-Prime. A full epoxy finish coat of Tnemec Series 20 Pota-Pox was applied over the primer.

C. Interior Wet

The tank interior wet was surface-prepared to SSPC-SP10 and primed with a zinc-rich primer, Tnemec Series 91 H2O Hydro-Zinc. Two coats of epoxy, Tnemec Series 20 Pota-Pox, were applied over the primer.

PAINT CONDITION

A. Exterior

The clear coat on the exterior of the tank appears in poor condition. In some places, it has failed entirely and it is spotty in others. The adhesion of the clear coat also appears in poor condition.

The remaining coatings on the base cone, stem, and middle and lower portions of the spheroid appear in good condition. The coatings on the exterior base cone average between 9 and 13 mil thickness, except at the southeast side of the base cone, which only averaged 5 to 6 mils. The coatings on the bottom flange of the base cone appear to have significant failings and rust.

The top of the tank appears in poor condition. The clear coat and the remaining coatings have failed in multiple locations and significant rusting is present. The top of the tank averages 4 to 7 mils of coating thickness. The adhesion of coating on the roof appears fair to poor.



Exterior Roof Paint

B. Interior Dry

The interior dry generally averaged between 7 and 11 mils thick. The interior dry at the base cone averaged around 7 mils but had a range of 5 to 15 mils. The adhesion is generally good. Rusting is mostly limited to platforms and around penetrations at the top of the access tube.

The interior dry appears to be in poor condition at the condensate platform and upper catwalk. The fittings, supports, and seams immediately above the platform and catwalk also appeared in poor condition. Rust is prevalent in these areas.

The overflow pipe appears to be in fair condition with minor rusting at some of the weld seams and coating thicknesses as low as 3 mils in some areas. The fill pipe's coating system and insulation have failed.

The ladder appears to be in average condition. Sporadic rusting along the ladder is common.

C. Interior Wet

The interior wet portion of the tank was only accessed from the top. The sidewall coatings appear to be in good condition. The coatings on the tank ceiling appear in good condition overall with an average coating thickness of 9 to 11 mils adjacent to the access hatch. The coatings around the manway, lid, and ladder appear in



Interior Wet Roof

poor condition. There appears to be some minor rusting along the beams. The spaces between the ceiling and roof beams are caulked. The caulk appears to be in good condition.

D. Paint Samples

Samples of the existing paint on the exterior were collected and saved should the Village want an outside laboratory to analyze them.

RECOMMENDATIONS

This section presents the recommended improvements to upgrade and maintain the Executive Water Storage Tank. The elevated tank appears in fair to good condition overall. Not all recommendations need to be implemented; however, they are listed for your information.

A. Repair or Replace Exterior Coatings

Based on the condition and of the exterior coatings and previous work completed, two options have been developed for repair. Option 1 is recommended for implementation.

- Option 1. Abrasive-blast to the nearest weld seam all metal at the top portion of the tank roof that exhibits failed coatings in accordance with SSPC-SP6 Commercial Blast. Spot prepare all other areas with coating delamination to SSPC-SP6. Brush blast the remainder of the exterior of the tank to SSPC-SP7 to entirely remove the clear coat. Prepare tank exterior inside shrouding to prevent damage to nearby structures. The shroud is not strictly necessary but is desired.

Prime the exterior roof with epoxy and apply a urethane intermediate coat. Follow the intermediate coat with one finish color coat of fluoropolymer.

Prime all spot-prepared areas with epoxy and apply a full tie coat of epoxy over the remaining exterior portions of the tank. Apply one intermediate coat of urethane followed by one finish color coat of fluoropolymer.

This coating system should protect the tank and provide good color and gloss retention for 15 to 20 years.

- Option 2 Abrasive-blast the entire exterior to a SSPC-SP6 Commercial Blast. A shroud is recommended. Prime the exterior with a zinc-rich primer and apply a urethane intermediate coat. Follow the intermediate coat with one finish color coat of fluoropolymer. This coating system is expected to maintain color and gloss retention and protect the tank steel for up to 25 years.

B. Repair Interior Wet Coatings

No immediate coating repairs are required in the interior wet. Minor coating repair could be done that would include a partial abrasive blast of failed areas of the interior wet ceiling along weld seams,

beams, ladder, and manways to SSPC-SP10 Near White. Prime surface of prepared areas with epoxy and apply two additional coats of epoxy. No coating repairs are required below the normal water level. It should be noted that the interior wet coatings system is reported to be 12 years old. The typical life expectancy of interior wet coatings is approximately 15 years. Replacement of the existing coating system on the interior wet at the same time as the exterior coating work may be beneficial by reducing the maintenance schedule for painting the tank in the future.

C. Repair Interior Dry Coatings

Power tool or abrasive-blast rusted areas in the interior dry to SSPC-SP6. This is primarily needed on the platforms, catwalk, manways, fittings, supports, and overflow piping seams. Prime damaged areas with epoxy primer and apply a finish epoxy coat to match existing.

1. Remove all insulation from the fill pipe, abrasive-blast the entire fill pipe to SSPC-SP6, and provide a two-coat epoxy system.
2. Provide new pipe insulation and aluminum jacket on riser pipe.
3. Install a fail-safe vent in place of the existing bolted, flanged manway to protect against pressure/vacuum damage. Provide a gasket between the flanges.
4. Seal the annular space between the side of the access tube and the roof penetration collar to prevent contamination entering the water containment portion of the tank.
5. Continue operation and yearly maintenance of the cathodic protection system.
6. Replace the curb on the interior wet manway with new steel curb.
7. Relocate cables along the ladder in the access tube to maintain 4 inches clearance from the ladder side rails.
8. Relocate the support for the communication antenna to allow interior wet manway cover to swing fully open.
9. Replace light bulbs.
10. Regrade around the tank to allow top of foundation to be 6 inches above grade and overflow discharge to drain away from the tank.

For more location information
please visit www.strand.com

Office Locations

Cincinnati, Ohio | 513.381.5600

Columbus, Indiana | 812.372.9111

Covington, Ohio | 513.835.0400

Indianapolis, Indiana | 317.420.8800

Joliet, Illinois | 815.744.4200

Lexington, Kentucky | 859.225.8500

Louisville, Kentucky | 502.582.7020

Madison, Wisconsin | 608.251.4000

Milwaukee, Wisconsin | 414.271.0770

Phoenix, Arizona | 480.400.8700

*Corporate Headquarters



**MUNICIPAL SERVICES COMMITTEE MEETING
AGENDA ITEM SUMMARY SHEET**

AGENDA ITEM DESCRIPTION

DISCUSSION –

LED Streetlight Replacement Project

COMMITTEE REVIEW

- ☐ Finance/Administration
☒ Municipal Services
☐ Public Safety

Meeting Date:

January 5, 2015

- | | |
|---|---|
| <input type="checkbox"/> Discussion Only | <input checked="" type="checkbox"/> Approval of Staff Recommendation (for consideration by Village Board at a later date) |
| <input type="checkbox"/> Seeking Feedback | <input type="checkbox"/> Approval of Staff Recommendation (for <u>immediate</u> consideration by Village Board) |
| <input type="checkbox"/> Regular Report | <input type="checkbox"/> Report/documents requested by Committee |

BACKGROUND

In February 2012, the Village received preliminary approval from the Illinois Department of Commerce and Economic Opportunity (DCEO) of a \$92,000 grant earmarked for improvements to the Village's streetlights. Final funding approval for the grant was awarded in October of 2013 and the grant was executed with an official start date of November 1, 2013. The Village has a period of two (2) years from this start date in which to complete the project. Therefore, the grant end date is October 31, 2015.

The scope of the project will include the replacement of the Village's antiquated, energy inefficient streetlight fixtures with new, energy efficient LED technology. There are currently approximately 250 Village owned streetlights which range from 24 to 49 years old. The new LED lighting heads will use a fraction of the energy the old heads used, will provide more uniform lighting disbursement, and will also save money on future maintenance (e.g., bulb replacement). Converting to LED technology will also reduce carbon emissions making it an environmentally friendly project. With this grant, the Village hopes to retrofit as many of these fixtures as possible, depending upon material and labor/installation costs and engineering fees.

After speaking with several LED vendors, it became apparent that an up-to-date inventory of our existing streetlights would first be necessary for bidding purposes for this project. Vendors need information pertaining to individual fixture type, wattage, circuitry, and number of fixtures connected to each controller before a proposal can be calculated. Therefore, staff asked the Village Engineering Consultant for a proposal to complete this inventory. Christopher Burke Engineering, Ltd. (CBBEL) provided a proposal to conduct the inventory, including GPS locating of each pole, and draft the project bid document for the not-to-exceed amount of \$17,000, which would be reimbursable through the grant. The Committee recommended this approach, and the Village Board accepted the CBBEL proposal at their regular meeting on August 25, 2014.

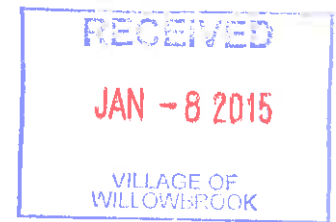
REQUEST FOR FEEDBACK

The bid document for this project is now complete, and has been reviewed by the Village Attorney. The final version is attached. The following is the proposed bid timeline:

- 1/12/15 – Municipal Services Committee authorization to go out to bid
- 1/16/15 – Public Bid Notice is published in the Suburban Life newspaper
- 2/4/15 – Public Bid Opening is held at Village Hall
- 2/9/15 – Bid results are shared with the Municipal Services Committee

STAFF RECOMMENDATION

Authorize staff to publish a bid notice for this project and solicit bids. The bid results will be brought back to the Committee for review and discussion and to determine whether this item should be considered as part of our FY2015/16 budget if there is a need to contribute additional funds to complete all streetlights at the same time.



CONTRACT DOCUMENTS
FOR
LED STREET LIGHTING REPLACEMENT CONTRACT

FOR
VILLAGE OF WILLOWBROOK, IL
DUPAGE COUNTY

SUBMITTED BY

COMPANY NAME

STREET ADDRESS

DATE

CBBEL PROJECT NO. 14-0489
DUE FEBRUARY 4, 2015 (BEFORE 10:30 AM LOCAL TIME)

PROJECT SPECIFICATIONS AND DRAWINGS

FOR

LED STREET LIGHTING REPLACEMENT CONTRACT
FOR
VILLAGE OF WILLOWBROOK, IL
DUPAGE COUNTY

OWNER: VILLAGE OF WILLOWBROOK
7760 QUINCY STREET
WILLOWBROOK, IL 60527

CONSULTANT: CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. HIGGINS ROAD
SUITE 600
ROSEMONT, IL 60018
(847) 823-0500

CONTRACT DOCUMENTS CONSISTING
OF

BID REQUIREMENTS
CONTRACTUAL DOCUMENTS
TECHNICAL SPECIFICATIONS

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TAB 1 - BID REQUIREMENTS

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00 21 13	Instructions to Bidders
00 41 00	Bid Form
00 43 95	Bidder Certification of Site Inspection
00 43 96	Contractor's Certification

TAB 2 - CONTRACT FORMS

<u>Section</u>	<u>Title</u>
00 50 00	Contract Agreement
00 60 00	Performance Bond
00 60 20	Labor and Material Payment Bond
00 60 40	Certification of Contractor Responsibility
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00 60 95	Clarification/Interpretation Request
-	DuPage County Prevailing Wages

TAB 3 - CONTRACT DRAWINGS

<u>Section</u>	<u>Title</u>
00 80 50	Drawings

TAB 4 - SPECIFICATIONS

<u>Section</u>	<u>Title</u>
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01 10 10	Responsibilities of Contractor
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26 56 00	LED Roadway Luminaire
26 56 40	Removal of Luminaire
26 56 50	Removal and Replace Existing Pole Wire

ADVERTISEMENT FOR BID

SECTION 01 11 13

The **Village of Willowbrook**, DuPage County, Illinois will receive separate sealed Bids in the office of the Village Clerk, 7760 Quincy Street, Willowbrook, IL 60527, until **Ten O'clock (10:30) A.M. local time on the 4th day of February 2015**, for **LED STREET LIGHTING REPLACEMENT CONTRACT**. Said Bids will be received at said time and place. Bids for this project will be considered not only on the basis of cost, but also on Contractor's past performance, experience and ability to perform the work. The Village of Willowbrook reserves the right to accept the Bid deemed to be in its own best interest based on all of the above considerations. Bid will be acted upon by the Mayor and Board of Trustees.

This project generally consists of the removal and replacement of existing Village cobra head luminaires with new energy efficient LED luminaires. Work will include removing existing luminaires, furnishing and installing new LED luminaires.

A Pre-Bid meeting will be held on Wednesday, January 28, 2015 at 10:00 a.m. at the Village Hall located at 7760 Quincy Street, Willowbrook, IL 60527.

A Bid Security in the amount of 10% (ten percent) of the Bid must be submitted with each Bid.

The **Village of Willowbrook** is requiring Bidders to submit a Statement of Qualifications in accordance with the Instructions to Bidders. A copy of the IDOT "Certification of Eligibility" indicating that the Contractor is qualified to perform Electrical Work (Category 014) must be submitted with each Bid.

Contractors and Subcontractors shall conform to the Employment of Illinois Public Works Act, (30 ILCS 570/1, et. Seq.).

Contractors shall be required to pay not less than the prevailing wage rates on the Project as established by the United States Department of Labor, State of Illinois Department of Labor, and the Illinois Prevailing Wage Act (820 ILCS 130/0.01 et Seq).

The Bidder to whom a Contract is awarded shall furnish a Performance and Payment Bond each in an amount equal to the Contract Price.

The Contract Documents for the proposed improvements are on file with the Village and may be obtained at the office of the Engineer, Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Suite 600, Rosemont, IL 60018, telephone: 847-823-0500, upon payment of a non-refundable fee of thirty-five dollars (\$35.00) for each set of Contract Documents payable to Christopher B. Burke Engineering, Ltd.

The **Village of Willowbrook** reserves the right in receiving Bids to waive irregularities or technicalities and to reject any or all Bids, and to hold the Bids for a period of forty-five (45) days from the date of opening above set forth.

Published by the order of the Village Clerk,
Village of Willowbrook, Illinois.

INSTRUCTIONS TO BIDDERS

SECTION 00 21 13

00100 GENERAL

To demonstrate qualification for performing the Work of this Contract, Bidders may be requested to submit written evidence of financial position, previous experience, and/or current commitments.

Bids for this project will be evaluated on a total price for the Base Bid and/or the Alternate Bid. Escalation of Contract price will not be allowed. All prices quoted must represent the entire cost in accordance with the Contract Document and no subsequent claim will be recognized for any increase in wage scales, material prices, cost indexes, or other rates affecting the construction industry or this project.

Project documents may be examined at the Owner's Office during normal office hours.

Project documents may be obtained at the offices of Christopher B. Burke Engineering, Ltd., 9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018 during normal working hours.

Do not separate this Document. Bids must be submitted in the form of the completely bound Contract Documents.

00101 BID DUE DATE, TIME AND PLACE

Signed Bids, under seal, executed and dated for furnishing all services, labor, equipment, materials, and performing all Work necessary for the **LED Street Lighting Replacement Contract**, all in accordance with the Contract Documents, will be received from **Qualified Contractors** by the Owner located at the offices of the **Village of Willowbrook, 7760 Quincy Street, Willowbrook, IL 60527** on or before **10:30 a.m.** local time on the **4th day of February, 2015**.

Bids will be opened publicly and read aloud at the above time and place. No immediate decision shall be rendered concerning the Bids submitted.

Bid offers submitted after the above Bid opening due time will be returned to the Bidder unopened.

00102 SUBMISSION OF BID

Bidders shall submit **one (1) copy** of their Bid, together with Bid Security and all other documents bound herewith, including all Addenda issued, in sealed envelope addressed as follows:

**The Village of Willowbrook
7760 Quincy Street
Willowbrook, IL 60527**

Subject: Proposal for LED Street Lighting Replacement Contract

In addition the sealed envelope submitted by the Bidder shall include the following information on the envelope face: Bidders name and address, and the date and hour of Bid opening as designated herein.

Where Bids are sent by mail, special messenger, courier service, etc. the Bidder shall be responsible for the delivery of the Bid as designated herein prior to the designated date and hour for the opening of the Bids. If delivery is delayed beyond the date and hour set for the Bid opening, Bids thus delayed will not be considered and will be returned unopened to respective Bidders.

00103 PROJECT DESCRIPTION & SCHEDULE

The project in general consists of removing and replacing existing HID luminaires with energy efficient LED luminaires.

Submittal Requirements. The Contractor shall submit a Base Bid for providing LED lighting fixtures (luminaires) as manufactured by General Electric "Evolve Series" and an Alternate Bid for providing LED lighting fixtures (luminaires) as manufactured by Cree Lighting "XSP Series".

INSTRUCTIONS TO BIDDERS

Security Precautions. Contractor shall be responsible for any and all security precautions which may be required during the course of the Work.

Working Hours. The Owner will allow Contractors to the job site during working hours from 7:00am to 5:00pm weekdays. Late night, Saturday and Sunday construction operations will not be allowed, except without prior approval from the Owner's Representative.

Project Schedule. The Work of these Contract Documents is required to be completed by June 1, 2015 and final invoicing/payment/waivers of lien shall be issued by June 15, 2015. The successful Bidder shall submit in writing, a construction schedule showing sequence of operations for review by the Owner prior to commencement of Work. A preliminary schedule shall be submitted with the Bid. The Owner intends for Work to begin as soon as possible after the Notice to Proceed is issued.

00104 LICENSE OR ROYALTY FEES

If the Project is designed to require or permit use of processes, articles, apparatus or equipment for which licenses, or royalty fees will be charged, fees shall be paid directly by Contractor to patentee, licensee or owner of such processes, and fees shall be included in Bid.

00105 EXAMINATION BY BIDDER

The Bidder shall, before submitting his/her Bid, carefully examine the Contract Documents, Bid, and bond and insurance requirements. The Bidder shall inspect in detail the site of the proposed Work and familiarize themselves with the detailed requirements of all Work including the demolition Work, together with work to be performed by others, and with all the local conditions affecting the Contract under which he/she will be obligated to operate in performing the Work. It is a mandatory requirement that the Bidder visit and inspect site of the proposed Work. By submission of a Bid it is understood that the Bidder has satisfied this mandatory requirement. If his Bid is acceptable, the Bidder shall be responsible for, and the Owner will make no allowance for, any errors in his/her Bid resulting from his/her failure or neglect to comply with these instructions.

00106 (NOT USED)

00107 INTERPRETATION OF CONTRACT DOCUMENTS

Questions regarding documents, discrepancies, omissions, or intent of the Specifications or Drawings shall be submitted in writing to Owner at least five days prior to opening of Bids to provide time for issuing and forwarding an Addendum. Any interpretation of the Contract Documents will be made only by Addendum duly issued or delivered by the Owner to each person receiving a set of Contract Documents. The Owner will not be responsible for any other explanations or interpretations of the Contract Documents. Failure on the part of the prospective Bidder to receive a written interpretation prior to the time of Bid opening will not be grounds for withdrawal of his/her Bid. The Bidder shall acknowledge receipt of each Addendum issued in the space so provided in the Bid Form. Oral explanations will not be binding.

Direct questions to Christopher B. Burke Engineering, Ltd.; Mr. Gerry Hennelly at (847) 823-0500.

00108 APPROXIMATE QUANTITIES

On all items on which Bids are to be received on a unit price basis the quantities stated in the Bid will not be used in establishing final payment due Contractor. The quantities stated, on which unit prices are invited, are approximate only. Bids will be compared on the basis of number of units stated in the Bid Schedule. Payment on the Contract on unit price items will be based on the actual number of units installed (or otherwise performed) in the completed Work. Dependent on the bid prices received, the Village may elect to add additional luminaire replacements to the Contract. The escalation of the increased quantity will be at the sole direction of the Village of Willowbrook. No escalation of the unit bid price for additional luminaires will be allowed.

00109 PREPARATION OF BID

The Bidder shall prepare his/her Bid on the attached Bid Form. Unless otherwise stated, all blank spaces of the Bid Form must be correctly filled in. Entries must be stated for each and every item, either typed in or written in ink. Only Bids which are made out on the Bid Form included in this Document will be considered. Amounts are to be shown in both words and figures. In case of discrepancy between words and figures the words shall prevail,

INSTRUCTIONS TO BIDDERS

unless it clearly appears in **Owner's** opinion that the words rather than the figures are in error. If any portion of the Bid is required to be given in unit prices and totals, and a discrepancy exists between the unit prices and totals, the unit prices shall prevail, unless it clearly appears in **Owner's** opinion that the unit prices rather than the totals are in error. If a discrepancy exists between the total base Bid and the true sum of the individual Bid items, the true sum shall prevail. A Bid will be rejected if it does not contain a price for each and every item named in the Bid Schedule. Bidders are warned against making any erasures or alterations of any kind, and Bids which contain omissions, erasures, conditions, alterations, or additions not called for may be rejected.

00110 SIGNING OF BID

If the Bidder is a corporation, the legal name of the corporation shall be set forth together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If the Bidder is a co-partnership, the true name of the firm shall be set forth together with the signatures of all the partners. If the Bidder is an individual, his/her signature shall be inscribed. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a power of attorney must be on file with the Owner prior to Bid opening or submitting Bids; otherwise the Bid may be regarded as irregular and may be rejected.

00111 BID SECURITY

Each Bid shall be accompanied by a bond, cashier's check or certified check drawn on a solvent bank in the **State of Illinois** payable without condition to the **Owner** in an amount not less than **ten percent (10%)** of the Bidder's highest aggregate Bid amount whether it be for the Base Bid or the Alternative Bid(s) (when Alternatives are requested), as a guarantee that the Bidder will within **fifteen (15) days** after the date of the award of a contract execute an agreement and file bond and insurance as required by the Contract Documents if his/her Bid is accepted. **Bid not accompanied by a Bid security will not be considered.**

If an intended awardee fails to execute and file an agreement, bonds and insurance as required by the Contract Documents, the amount of the security submitted with his/her Bid shall be forfeited, not as a penalty, but as liquidated damages. No Bid will be considered unless accompanied by a Bid Security as a guarantee that if the Bid is accepted the Bidder will execute the Agreement and file bonds and insurance as required by the Contract Documents within **15 days** from the date of the award of the Contract.

The Bid security of the three (3) lowest Bidders will be retained until a contract has been entered into and executed with the successful Bidder and the performance and labor and material payment bonds, each in the full amount of the Contract, have been posted with the **Village of Willowbrook** and Certificates of Insurance indemnifying and adding as Additional Insureds, the **Village of Willowbrook** and **Christopher B. Burke Engineering, Ltd.**, and their officers, employees and agents, have been delivered to and reviewed by the Engineer.

00112 RETURN OF BID SECURITIES

The Bid securities of the three lowest Bidders will be held until the Agreement has been executed by the successful Bidder and he/she has filed with **Owner** the required bonds and insurance, after which Bid securities will be returned to the three lowest Bidders. The Bid securities of the other Bidders will be returned within **15 days** after the opening of the Bids.

00113 CONSIDERATION OF BIDS

No Bid will be accepted from or Contract awarded to any person, firm or corporation that is in arrears or is in default to the **Owner** upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to the **Owner**, or had failed to perform faithfully any previous contract with the **Owner**.

The **Owner** reserves the right to accept or reject any or all Bids, to waive any informalities in any Bid, or to make awards in the best interest of the **Owner**. The **Owner** also reserves the right to award a partial amount of the Specification rather than the entire amount.

00114 BID SUBMITTAL

Any Bid may be withdrawn at any time prior to the hour herein stated for the Bid opening, provided that a request in writing, executed by the Bidder, or his/her duly authorized representative, for the withdrawal of such Bid is filed with

INSTRUCTIONS TO BIDDERS

Owner prior to the time specified for opening of Bids. The withdrawal of a Bid will not prejudice the right of a Bidder to file a new Bid.

No Bidder shall withdraw, cancel or modify his/her Bid for a period of **forty-five (45)** consecutive calendar days after the specified closing time for the receipt of Bids, nor shall the successful Bidder withdraw, cancel or modify his/her Bid after having been notified that said Bid has been accepted by the **Owner**.

Bidders shall guarantee their Bids for a period of **forty-five (45)** consecutive calendar days from the date of receipt of Bids.

00115 PENALTY FOR COLLUSION

If at any time it shall be found that the person, firm or corporation to whom the Contract has been awarded has, in presenting any Bid or Bids, colluded with any other party or parties, then the Contract so awarded shall be null and void, and Contractor and his/her sureties shall be liable to **Owner** for all loss or damage which **Owner** may suffer thereby, and **Owner** may advertise for new Bids for said Work.

00116 LICENSE AND EXPERIENCE

Each Bidder shall possess state and local licenses as are required by law, and shall furnish satisfactory proof to **Owner** upon request that the licenses are in effect during the entire period of the Contract.

To be considered as eligible to submit a Bid, a Bidder shall have complied with all legal requirements to permit him/her to operate under applicable laws of the **State of Illinois**. The Contractor shall submit a copy of the IDOT "Certification of Eligibility," listing the Contractor as IDOT prequalified to perform the work specified in the Contract.

The Contractor proposing the project shall be actively engaged in Work of the nature of the project described and have adequate specialized workers and machines to do the Work.

The Bidder shall provide the business information, information regarding terminations, litigation, suspension and debarment requested by the **Village of Willowbrook** and at least four (4) references to the **Village of Willowbrook** of work successfully performed, similar in nature to the proposed work, within the past three (3) years. The following shall be provided for each project.

- 1) The project owner's name.
- 2) The name, address, telephone number and e mail address of the project owner's contact person.
- 3) The services provided and the dollar value of work performed on the project.
- 4) The inclusive dates the work was performed.

00117 ACCEPTANCE/REJECTION OF BIDS

The **Owner** expects to accept one of the Bids or reject all Bids within **forty-five (45)** days from the date of Bid opening, unless the lowest responsive Bidder, upon request of the **Owner**, extends the time of acceptance to the **Owner**.

The Owner reserves the right to reject any and all Bids when such rejection is in the interest of the Owner, to reject Bid of a Bidder who has previously failed to perform properly, or complete on time, contracts of a similar nature, and to reject Bid of a Bidder who is not, in opinion of the Consultant or the Owner, in a position to satisfactorily perform the Work of the Contract. The Owner also reserves the right to waive any informalities and technicalities in proposing.

The Contract will be awarded to the lowest responsible Bidder, plus any accepted alternates, unless all Bids are rejected. However, the **Owner** reserves the right to award Contract in its best interest, and therefore, reserves the right to select a Bidder other than lowest.

00118 EFFECTIVE DATE OF AWARD

If a Contract is awarded by Owner, such award shall be effective when formal notice of such award, signed by the authorized representative of Owner, has been delivered to the Intended awardee, or mailed to him/her at the main business address shown on his/her Bid by an officer or agent of Owner duly authorized to give such

INSTRUCTIONS TO BIDDERS

notice.

00119 EXECUTION OF AGREEMENT

Copies of the Agreement in the number stated in the Contract Agreement will be supplied by the **Owner** and shall be executed by the successful Bidder, and returned, together with the required bonds and insurance, within **fifteen (15)** days from and after the date of the award of the Contract. Effective date of bonds shall be the same or later than the date of the Agreement.

00120 FAILURE TO EXECUTE AGREEMENT AND FILE BOND & INSURANCE

Failure of a successful Bidder to execute the Agreement and file required bonds and insurance within the required time shall be just cause for the annulment of the award. On failure of a successful Bidder to execute the Agreement and file the required bonds and insurance within the required time, he/she shall forfeit his/her Bid Security as agreed hereinbefore. Upon annulment of an award as aforesaid, **Owner** may then re-award the Contract.

00121 EXCEPTIONS

Any Bidder's exceptions to these terms or conditions or deviations from the written Specifications shall be shown in writing and attached to the Bid Form. However, such exceptions may be cause for rejection of the Bid.

00122 SUBSTITUTE MATERIAL

Where in the Technical Specifications one or more certain equipment/materials, trade names or articles of certain manufacture are mentioned, it is done for the express purpose of establishing a basis of durability and efficiency and not for the purpose of limiting competition. Other names of equipment/material can be used if, in the opinion of the Engineer and the Owner, they are equal in durability and efficiency to those mentioned and of a design in harmony with the Work as outlined; and the Engineer and Owner give a written approval of a substitution. Adequacy of the proposed substituted equipment and/or materials shall be determined during the Bid review process. Any substituted materials and/or equipment ordered by the Contractor during the shop drawing review process shall not be allowed. Should a substitution of equipment and/or materials be desired, the Contractor shall be required to request the change in writing within ten (10) days of the Bid date.

00123 GUARANTEE

The Contractor shall furnish a satisfactory surety bond in the sum of the full amount of the Contract in dollars guaranteeing the proper completion of the Work and the maintenance of the Work during the period of one (1) year from and after the date of the completion and acceptance of the same. The maintenance, however, shall not include any damage to the Work or to any of the other obligations embraced by the Contractor which may be incurred by action beyond the control of the Contractor.

00124 PAYMENT BOND

The Contractor shall furnish a satisfactory payment bond in the full amount of the Contract guaranteeing payment of all material used and for all labor performed.

00125 PERMITS

The Contractor shall be responsible for any and all permits and permit fees as may be required to accomplish the work of this Contract. The Contractor shall be required to comply with all provisions of each of the permits issued, post the necessary bonds in the required amounts, and furnish the necessary insurance certificates.

00126 PREVAILING WAGE RATES

Not less than a prevailing wage rate shall be paid for labor on the Work to be performed under this Contract, as required by law. The rates for various phases of Work contemplated shall be in accordance with the prevailing wage scale. The Contractor shall be required to comply with all applicable federal, state and local laws pertaining to employment. The Bidder shall certify that it has and will comply with all laws relating to the payment of general prevailing wages in accordance with the Illinois Prevailing Wage Act (820 ILCS 130/0.01 et. Seq.). The Owner may at any time inquire of the Contractor as to the rates of wages being paid employees of the Contractor, any

INSTRUCTIONS TO BIDDERS

subcontractor or material men, where upon such information shall be promptly provided to the Owner. A certified payroll shall be submitted with each pay out request.

00127 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

The Bidder shall certify that it has and will comply with all laws relating to the employment of Illinois workers in accordance with the Employment of Illinois Workers on Public Works Act (30 ILCS 570/I *et seq.*);

00128 TAXES

Federal Excise Tax does not apply to materials purchased by the **Village of Willowbrook** by virtue of its municipality status. The **Village of Willowbrook** is a not-for-profit agency which has a sales tax exemption status. Owner's Tax Exemption Number will be provided (if requested) to the successful Bidder upon execution of the Agreement.

00129 LIQUIDATED DAMAGES

Time is of the essence in completion of the Work. The **Village of Willowbrook** may collect liquidated damages in the amount of **\$500** per occurrence should the Contractor fail to complete the authorized work within the time allowed for in the Response Repair Time Table (see Street Lighting Maintenance General Provisions).

00130 DEFINED TERMS

The terms "**The Village of Willowbrook**", "Bid" and "Plans" mean the same as "OWNER", "BID", and "DRAWINGS" respectively.

Where references are made to "Village" or "the Village", such references shall be understood to mean "The Village of Willowbrook".

Where **Owner's Representative** is referenced, such reference shall be understood to mean the Engineer (when appointed by the Owner), and/or any other individual(s) duly authorized by the **Owner** to act as the representative of the **Owner**.

Terms used in these Instructions to Bidders are defined in the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction (referred to as the Standard Specifications), latest edition, unless otherwise stated. The Standard Specifications shall apply to the Work of this Contract Documents and shall be incorporated into this Contract as the General Conditions of the Contract all of which are as fully a part of this Contract as if herein set out verbatim.

00131 CERTIFICATIONS

Each Bid shall be accompanied by a Bidder's Certification in the form provided by the Village of Willowbrook with the Bid package. The Bidder shall certify the following:

a) **Illinois Taxes**

The Bidder shall certify that if it is a partnership, that it is, and its general partners are and, if it is a corporation, its shareholders holding more than five percent (5%) of the outstanding shares of the corporation, its officers and directors are, not delinquent in the payment of taxes to the Illinois Department of Revenue in accordance with 65 ILCS 5/11-42.1-1.

b) **Bid Rigging**

The Bidder shall certify that, if it is a partnership, that it has, and its general partners have and, if it is a corporation, its shareholders holding more than five percent (5%) of the outstanding shares of the corporation, its officers and directors have not been barred from contracting with a unit of state or local government as a result of a violation of Section 33E-3 or 33E-4 of the Criminal Code of 1961.

INSTRUCTIONS TO BIDDERS

c) **Educational Loan**

The Bidder shall certify that if it is an individual, that it is, if it is a partnership, its general partners are, and, if it is a corporation, its shareholders holding more than five percent (5%) of the outstanding shares of the corporation, its officers and directors are, not in default, as defined in 5ILCS 385/2, on an educational loan, as defined in 5ILCS 385/1.

d) **Veterans Preference Act**

The Bidder shall certify that it has and will comply with all laws relating to the employment preference to veterans in accordance with the Veterans Preference Act (330 ILCS 55/0.01 *et seq.*);

e) **Drug-free Workplace**

The Bidder shall certify that it will provide a drug-free workplace by:

(A) Publishing a statement:

- (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance, including cannabis, is prohibited in the Bidder's workplace;
- (2) Specifying the actions that will be taken against employees for violations of such prohibition;
- (3) Notifying the employee that, as a condition of employment on such contract, the employee will:
 - a. abide by the terms of the statement; and
 - b. notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;

(B) Establishing a drug-free awareness program to inform employees about:

- (1) the dangers of drug abuse in the workplace;
- (2) the Bidder's policy of maintaining a drug-free workplace;
- (3) any available drug counseling, rehabilitation, and employee assistance program; and
- (4) the penalties that may be imposed upon employees for drug violations;

(C) Making it a requirement to give a copy of the statement required by subparagraph (A) to each employee engaged in the performance of the Contract and to post the statement in a prominent place in the workplace;

(D) Notifying the Department within ten (10) days after receiving notice under subparagraph (A)(3)b from an employee or otherwise receiving actual notice of such conviction;

(E) Imposing a sanction on or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by any employee who is so convicted, as required by 30 ILCS 580/5;

(F) Assisting employees in selecting a course of action in the event drug counseling treatment and rehabilitation is required and indicating that a trained referral team is in place;

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

f) **Human Rights Number**

The Bidder shall certify that at the time the Bidder submitted a Bid on this contract, the Bidder had an Illinois Department of Human Rights pre-qualification number or had a properly completed application for same on file with the Illinois Department of Human Rights, as provided for in 44 Illinois Administrative Code 750.210.

INSTRUCTIONS TO BIDDERS

g) **Prohibited Interest in Contract.**

The Bidder shall certify that:

(1) no Village officer, spouse or dependent child of a Village officer, agent on behalf of any Village officer or trust in which a Village officer, the spouse or dependent child of a Village officer or a beneficiary is a holder of any interest in the Bidder, or

(2) if the Bidder's stock is traded on a nationally recognized securities market, that no Village officer, spouse or dependent child of a Village officer, agent on behalf of any Village officer or trust in which a Village officer, the spouse or dependent child of a Village officer or a beneficiary is a holder of more than one percent (1%) of the Bidder, but if any Village officer, spouse or dependent child of a Village officer, agent on behalf of any Village officer or trust in which a Village officer, the spouse or dependent child of a Village officer or a beneficiary is a holder of less than one percent (1%) of such Bidder, the Bidder has disclosed to the Village in writing the name(s) of the holder of such interest.

h) **Gift Ban.**

(1) The Bidder shall certify that no officer or employee of the Village has solicited any gratuity, discount, entertainment, hospitality, loan, forbearance, or other tangible or intangible item having monetary value including, but not limited to, cash, food and drink, and honoraria for speaking engagements related to or attributable to the government employment or the official position of the employee or officer from the Bidder in violation of Section 2-8A of Chapter 2 of the Willowbrook Municipal Code; and

(2) The Bidder shall certify that the Bidder has not given to any officer or employee of the Village any gratuity, discount, entertainment, hospitality, loan, forbearance, or other tangible or intangible item having monetary value including, but not limited to, cash, food and drink, and honoraria for speaking engagements related to or attributable to the government employment or the official position of the employee or officer in violation of Section 2-8A of Chapter 2 of the Willowbrook Municipal Code.

i) **Substance Abuse.**

The Bidder shall certify that in compliance with the Substance Abuse Prevention on Public Works Projects Act (Public Act 95-0635), the Bidder is a party to a collective bargaining agreement dealing with the subject matter of the Substance Abuse Prevention on Public Works Projects Act or has in place and is enforcing a written program which meets or exceeds the program requirements of the Substance Abuse Prevention on Public Works Projects Act.

j) **Presidential Executive Order 13224**

The Bidder shall certify that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person and that the Bidder and its principals, shareholders, members, partners, or affiliates, as applicable, are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Agreement on behalf of any person or entity named as a Specially Designated National and Blocked Person.

00132 CONSIDERATION OF BIDS

a) After the Bids are opened, read and recorded, the Bids will be reviewed for responsiveness to the Request for Bids and conformity with all requirements prescribed in these Instructions. If unit prices are required, the Bids will be compared on the basis of the summation of the products of the quantities shown in the Bid Schedule by the unit prices.

b) The right is reserved by the Village of Willowbrook to reject any or all Bids, to waive minor informalities or technicalities, to advertise for new Bids, or to request confirmation or clarification from any Bidder regarding information contained in a Bid.

INSTRUCTIONS TO BIDDERS

c) Reasons for rejection of all Bids include but are not limited to:

- 1) The object of the contract being procured is no longer required.
- 2) The contract provisions require amendment.
- 3) The solicitation did not provide for consideration of all factors of significance to the Village of Willowbrook.
- 4) The Bid prices exceed available funds or the Bid prices exceed the anticipated estimate of costs to the extent that, in the judgment of the Village of Willowbrook Village Administrator, prices are unreasonable.
- 5) Evidence of collusion among Bidders.
- 6) Actions or events beyond the control of the Village of Willowbrook, such as strikes, acts of God, material shortages, acts of the public enemy or litigation, would have an adverse effect on the completion of the anticipated contract.

d) Reasons for rejection of any individual Bids include, but are not limited to:

- 1) More than one Bid for the same contract item from a Bidder under the same or different names.
- 2) Evidence of collusion among Bidders.
- 3) Unbalanced Bids in which the Bid prices for some items are, in the judgment of the Village of Willowbrook, out of proportion to the Bid prices for other items.
- 4) If the Bid does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum pay items.
- 5) If the Bid form is other than that furnished or authorized by the Village of Willowbrook, or if the form is altered or any part thereof is detached.
- 6) If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate Bids, or irregularities of any kind that may tend, in the judgment of the Village of Willowbrook, to make the Bid incomplete, indefinite, or ambiguous as to its meaning.
- 7) If the Bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
- 8) If the Bid is not accompanied by the proper bond or substitute guaranty.
- 9) If the Bid is prepared in any manner other than as indicated in these Instructions or the Request for Bids making the Bid not responsive.
- 10) If the Bidder:
 - (i) violated a material term of a prior contract with the Village;
 - (ii) committed an act or omission which negatively reflects on the Bidder's quality, fitness, or capacity to perform a contract with the Village, any other public entity, or engaged in a pattern or practice which negatively reflects on same;
 - (iii) committed an act or omission which indicates a lack of business integrity or business honesty; or
 - (iv) made or submitted a false claim against the Village or any other public entity;

INSTRUCTIONS TO BIDDERS

- (v) provided false information to the Village;
- (vi) been suspended pursuant to Sections 20-75 and 50-65 of the Illinois Procurement Code (30 ILCS 500/20-75 and 50-65) by a State of Illinois agency;
- (vii) been suspended or debarred by the United States through a federal agency;
- (viii) been suspended by the Illinois Department of Labor pursuant to Section 11a of the Prevailing Wage Act (820 ILCS 130/11a);
- (ix) been suspended or debarred because of Bid rigging or Bid rotating convictions pursuant to the provisions of Article 33E of the Criminal Code of 1961 (720 ILCS 5/Art. 33E);
- (x) been suspended or debarred pursuant to the provisions of the Illinois Procurement Code (30 ILCS 500);
- (xi) been suspended or debarred pursuant to the operation of Section 6 of the Drug Free Workplace Act (30 ILCS 580/6);
- (xii) has been debarred by operation of the Educational Loan Default Act (5 ILCS 385);
- (xiii) been suspended or debarred by operation of Section 25 of the Procurement of Domestic Products Act (30 ILCS 517/25);
- (xiv) has filed for protection from creditors pursuant to the bankruptcy laws of the United States;
- (xv) has a performance evaluation determined by the Village to be unsatisfactory;
- (xvi) has failed to execute a contract after award or has caused the re-advertisement of a project through mistakes or neglect in the Bid procedures;
- (xvii) has defaulted or otherwise substantially breached its obligations on previously awarded contracts or contracts approved for award by the Village;
- (xviii) has failed to submit final documentation on any open contract or to pay, or satisfactorily settle, all bills due for labor and material on previously awarded contracts; or
- (xix) has been convicted for the violation of any state or federal law having relevance to the integrity and reliability of the Bidder.

00133 MISTAKES

a) If a Bidder claims a mistake in its Bid, the Bid may be withdrawn in accordance with this section without payment of damages to the Village of Willowbrook as provided in the terms of a bond or other Bid security, provided the Bidder claiming the mistake demonstrates to the Village of Willowbrook with competent and reliable evidence:

- 1) that the claimed mistake is related to a material feature of the contract;

INSTRUCTIONS TO BIDDERS

2) that the mistake would have serious, material consequences to the Bidder such that enforcement of a contract would be unconscionable;

3) that the mistake occurred notwithstanding the exercise of reasonable care by the Bidder; and

4) that the Bidder has raised the claim of a mistake without delay in order to prevent the Village of Willowbrook from altering its position in such a manner that loss to the Village of Willowbrook would occur.

b) The Village of Willowbrook reserves the right to correct obvious, apparent errors in Bids. A Bid may not be withdrawn if a mistake is apparent and the intended correct Bid is clearly evident on the face of the Bid. Examples of mistakes that may be clearly evident on the face of the Bid include, but are not limited to, typographical errors, errors in extending unit prices, transposition errors and arithmetical errors.

c) Mistakes claimed after execution of the contract will not be corrected.

00134 AWARD AFTER BID EVALUATION

a) Unless all Bids are rejected, an award notification will be made to the lowest responsible Bidder, whose Bid is responsive to and conforms with the requirements and criteria of the invitation. Tie Bids will be decided by lot. All responsibility, responsiveness, and price factors are considered so as to select the Bid most advantageous to the Village of Willowbrook. An individual contract item advertised in a Request for Bids may state other, additional award and evaluation criteria that will be capable of objective consideration for award.

b) Responsibility of Bidders will be determined based upon the following factors unless some other or additional factors or prequalification procedures are stated in the Request for Bids:

1) The Bidder shall possess the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual obligations.

2) The Bidder shall have a satisfactory record of performance as determined by the Village of Willowbrook, including but not limited to, a sound record of integrity and business ethics.

3) The Bidder shall be under no legal disability of any kind to contract with the Village of Willowbrook.

4) The Bidder shall have submitted all information requested by the Request for Bids concerning responsibility.

END OF SECTION

BID FORM

SECTION 00 41 00

**TO: VILLAGE OF WILLOWBROOK
7760 QUINCY STREET
WILLOWBROOK, IL 60527**

PROJECT: LED STREET LIGHTING REPLACEMENT CONTRACT

ACKNOWLEDGMENTS: The undersigned has received the Contract Documents entitled: "**LED Street Lighting Replacement Contract**" and the following addenda to these documents:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

All provisions of the Contract Documents and the addenda have been included in the Bid submitted by the undersigned. The undersigned has carefully examined all of the Contract Documents and the sites and submits the following Bid:

AGREEMENT: In submitting this Bid, the undersigned agrees and/or understands:

1. Bids are to be held for **45 days** with a "Notice of Award" expected to be issued to the apparent successful Bidder within **45 days** after the Bid opening.
2. The prices in this Bid have been arrived at independently, without consultation, communication or agreement, as to any matter relating to such prices with any other Bidder or with any competitor and this Bid is in all respects fair and without collusion or fraud. Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed and will not knowingly be disclosed prior to opening directly or indirectly to any other Bidder or to any competitor. No attempt has been made nor will be made by the undersigned to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition.
3. To enter into and execute the Contract and furnish the properly executed bonds and insurance certificates within the time and with the forms and in the amounts required by the Contract Documents if the award is made to the undersigned.
4. To accomplish the Work strictly in accordance with the Contract Documents.
5. To complete all Work within **the time periods shown in the Contract Documents** and after Notice to Proceed is received. The Bidder, in submitting a Bid offer, accepts the specified Contract Time for performing the Work. Completion of Work shall be in accordance with the phased construction schedule.
6. The undersigned warrants that he/she has carefully examined the sites of the Work and all Contract Documents, that he/she is fully aware and knows of the character of the material, that he/she is fully satisfied as to the conditions to be encountered overhead, on the surface and in the spaces, and of the character, quality and quantities of Work to be performed and materials to be furnished, and the requirements of the Contract Documents. Furthermore, the undersigned has based the within Contract prices on his/her own independent examination in performing the Work and has not relied upon any information furnished to him/her by the Owner, any agent, servant or employee of the Owner. The undersigned agrees to assume all risks arising from any deficiencies in the Drawings, Specifications, or other Contract Documents and will make no claim against the Owner because of any such alleged deficiency or alleged breach of warranty by the Owner. The undersigned further assumes all risks of any unforeseen conditions to be incurred in performing the Work, either overhead, on the surface, or in spaces, and has taken these risks into consideration in preparing his/her Bid. The undersigned further warrants that he/she will perform such additional and/or corrective Work as may be required in order to insure that the Work performs its intended function satisfactorily, for the prices set forth in his/her Bid and at no additional cost to the Owner.

BID FORM

7. Before submitting this Bid, the undersigned confirms that he/she has available the equipment, forces and materials necessary to perform the Work and made all necessary arrangements to insure that such equipment and materials be delivered to the site at such time as will enable him/her to perform all obligations of the Contract within the Construction Time herein stated. Furthermore, the undersigned also confirms that he/she has contacted the manufacturers and/or suppliers of the equipment and materials necessary to perform the Work and made all necessary arrangements to insure that such equipment and materials be delivered to the site at such time as will enable him/her to perform all obligations of the Contract within the Construction Time herein stated.
8. Accompanying this Bid is a Bid Security complying with the provisions herein stated.
9. If this Bid is accepted and the undersigned fails to execute a contract and provide the bonds and certificate of insurance, as required, it is hereby agreed that the Bid Security shall be forfeited to the **Owner**, not as a penalty, but as liquidated damages.
10. Each pay item listed in the Bid Schedule and in the Schedule of Prices shall have a unit price or lump sum price and a total price.
11. The unit price shall govern if no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity.
12. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.
13. A Bid will be declared unacceptable if neither a unit price nor a total price is shown.
14. The undersigned firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the **State of Illinois**, nor has the firm made an omission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm. The undersigned firm further certifies that it is not barred from contracting with any unit of State or local government as a result of a violation of the State laws prohibiting Bid-rigging or Bid-rotating.

NOTE: Bidders shall submit a price for each item in the Bid Schedule and in the Schedule of Prices. Failure to do so may result in rejection of the Bid. The completed Schedule of Prices shall accompany the Bid.

BID FORM**BID SCHEDULE:**

The undersigned, having carefully examined all of the Contract Documents for **LED Street Lighting Replacement Contract** as well as the site of the Work and all conditions affecting the Work, including adjacent surroundings, shall furnish all services, labor, equipment and materials necessary and to complete all the Work for the prices set forth in the following Schedule of Prices:

BASE BID

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
UNIT PRICE ITEMS FOR LED STREET LIGHTING REPLACEMENT CONTRACT					
01 50 00/01	Traffic Control and Protection, Standard 701301	1	LSUM		
01 50 00/02	Traffic Control and Protection, Standard 701427	1	LSUM		
26 56 00	LED Roadway Luminaire GE Evolve ERS 2 Series	64	EACH		
26 56 40	Removal of Luminaire	64	EACH		
26 56 50	Remove and Replace Existing Pole Wire, 1/C #10	2,000	FOOT		
00 21 13 / 00 60 50	Bonds and Insurance	1	LSUM		
TOTAL BID PRICE					

(FIGURES)

ALTERNATE BID

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
UNIT PRICE ITEMS FOR LED STREET LIGHTING REPLACEMENT CONTRACT					
01 50 00/01	Traffic Control and Protection, Standard 701301	1	LSUM		
01 50 00/02	Traffic Control and Protection, Standard 701427	1	LSUM		
26 56 00	LED Roadway Luminaire Cree XSP 2 Series	64	EACH		
26 56 40	Removal of Luminaire	64	EACH		
26 56 50	Remove and Replace Existing Pole Wire, 1/C #10	2,000	FOOT		
00 21 13 / 00 60 50	Bonds and Insurance	1	LSUM		
TOTAL BID PRICE					

(FIGURES)

BID FORM

EXCEPTIONS AND DEVIATIONS

The Bidder shall list herein all exceptions and deviations taken to the Contract Documents by Section and page number. (Use additional sheets if required and state number of sheets).

Exceptions and deviations taken to the Contract Documents are (check one): None (___); As Stated Below (___)/Sheet ___ of ___.

Section/Pg. No.

Description of Exception/Deviation

NOTE: Exceptions and/or deviations taken may be cause for rejection of Bid.

BID FORM

SUBCONTRACTOR LISTING

The following list of subcontractors and class of work performed by each is submitted. Subcontractors are defined as persons, firms or corporations who supply labor and/or materials for work under this Contract.

Subcontractor

Class of Work

BID FORM

BIDDER'S EXPERIENCE/QUALIFICATIONS

The Bidder shall be pre-qualified for Electrical Work with IDOT, District 1.

To demonstrate the Bidder's experience/qualifications, the Bidder shall list herein at least three (3) similar projects equal or greater in capacity which the Bidder has successfully completed within the past five (5) years.

<u>Owner or Municipality</u>	<u>General Project Description</u>	<u>Reference Name and Phone No.</u>	<u>Year Completed</u>
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Note: Bid will be considered "Non-Responsive" if the above experience listing, qualifications and requirements are not fulfilled.

BID FORM

BID CONDITIONS

It is expressly understood and agreed that quantities in the Bid Schedule for Unit Price Work Items are approximate only, and that payment on the Contract will be made only on the actual quantities of Work complete in place, measured on the basis defined in the Contract Conditions and the Contract Specifications.

The undersigned has carefully checked the above Bid Schedule against the Contract Drawings and Specifications before preparing this Bid and accepts the items listed in this Bid as substantially correct, both as to classification and amount, and as correctly listing the complete Work to be done in accordance with the Contract Drawings and Specifications.

If this Bid is accepted and the undersigned shall fail to contract as aforesaid and to give the Performance Bond and Payment Bond and to provide all insurance as required by the Contract Documents within **fifteen (15) days** after the date of the award of the Contract, the Owner may, at his/her option, determine that the Bidder has abandoned his/her Contract, and thereupon this Bid and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this Bid shall operate and the same shall be the property of the Owner as liquidated damages.

BID SECURITY (NOT APPLICABLE)

Accompanying this Bid is a _____ Dollars (\$_____).

- Note:
- a. Insert the words "bond" or "cashier's check", or "certified check" as the case may be. In the case where Bid security is not required by the contract insert the words "Not Required by Contract".
 - b. Amount must be equal to at least **ten percent (10%)** of the Total Bid Price. Where an Alternative(s) has been requested, the Bid Security shall be at least ten percent (10%) of the highest aggregate amount whether it be the Total Base Bid Price or the Total Alternative Bid Price.

Attach Bid Security Here

BID SIGNATURE:

State of _____)
County of _____) ss

_____, being first duly sworn on oath deposes and says that the Bidder on the above Bid is organized as indicated below and that all statements herein made are made on behalf of such Bidder and that his/her deponent is authorized to make them.

_____, also deposes and says that he examined and carefully prepared his/her Bid from the Contract Drawings and Specifications and has checked the same in detail before submitting this Bid, that the statements contained herein are true and correct.

BID FORM

(Fill Out Applicable Paragraph Below)

If Bidder is:

An Individual

By _____ (SEAL)
(Individual's Name)

doing business as _____

Business address: _____

Phone Number: _____

A Partnership

By _____ (SEAL)
(Firm Name)

(General Partner)

Business address: _____

Phone Number: _____

A Corporation

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign)

(Title)

(Corporate Seal)

Attest _____ (SEAL)
(Secretary)

Business address: _____

Phone Number: _____

END OF SECTION

**BIDDER CERTIFICATION
OF COMPLIANCE OF SITE INSPECTION**

SECTION 00 43 95

I _____, do hereby certify that:

1. I am _____ of the _____.
Position Firm

and have authority to execute this certification on behalf of this firm.

2. That on _____ I visited and inspected the project work site scheduled for
(Date)
improvements of this Contract.

Name of Firm _____

Signature _____

Title _____

Date _____

Corporate Seal (where appropriate)

END OF SECTION

CONTRACTOR'S CERTIFICATION

SECTION 00 43 96

The assurances hereinafter made by the Contractor are each a material representation of fact upon which reliance is placed by the Village of Willowbrook in entering into the contract with the Contractor. The Village of Willowbrook may terminate the contract if it is later determined that the Contractor rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

I, _____, hereby certify that I am the _____ of
(Name of Owner or Officer) (Title or Office)

_____, and as such, hereby represent and warrant to the Village of
(Name of Contractor)

Willowbrook, a municipal corporation that the Contractor and its shareholders holding more than five percent (5%) of the outstanding shares of the corporation, its officers and directors are:

- (A) not delinquent in the payment of taxes to the Illinois Department of Revenue in accordance with 65 ILCS 5/11-42.1-1;
- (B) not barred from contracting as a result of a violation of either Section 33E-3 (Proposal Rigging) or 33E-4 (Proposal Rotating) of the Criminal Code of 1961 (720 ILCS 5/33E-3 and 5/33E-4);
- (C) not in default, as defined in 5ILCS 385/2, on an educational loan, as defined in 5ILCS 385/1;

In addition, the Contractor hereby represents and warrants to the Village of Willowbrook, that:

- (A) the Contractor has and will comply with all laws relating to the payment of general prevailing wages in accordance with the Illinois Prevailing Wage Act (820 ILCS 130/0.01 *et seq.*);
- (B) the Contractor has and will comply with all laws relating to the employment preference to veterans in accordance with the Veterans Preference Act (330 ILCS 55/0.01 *et seq.*);
- (C) the Contractor has and will comply with all laws relating to the employment of Illinois workers in accordance with the Employment of Illinois Workers on Public Works Act (30 ILCS 570/1 *et seq.*);
- (D) the Contractor, pursuant to 30 ILCS 580/1 *et seq.* (Drug-Free Workplace Act), will provide a drug-free workplace by:

(1) Publishing a statement:

- a. Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance including cannabis, is prohibited in the Contractor's workplace;
- b. Specifying the actions that will be taken against employees for violations of such prohibition;
- c. Notifying the employee that, as a condition of employment on such Contract, the employee will:
 - i. Abide by the terms of the statement;
 - ii. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;

(2) Establishing a drug-free awareness program to inform employees about:

- a. the dangers of drug abuse in the workplace;
- b. the Contractor's policy of maintaining a drug-free workplace;

CONTRACTOR'S CERTIFICATION

- c. any available drug counseling, rehabilitation, and employee assistance program; and
 - d. the penalties that may be imposed upon employees for drug violations;
 - (3) Making it a requirement to give a copy of the statement required by Subsection (D)(1) to each employee engaged in the performance of the Contract, and to post the statement in a prominent place in the workplace;
 - (4) Notifying the Village within ten (10) days after receiving notice under paragraph(D)(1)e from an employee or otherwise receiving actual notice of such conviction;
 - (5) Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by any employee who is so convicted, as required by 30 ILCS 580/5;
 - (6) Assisting employees in selecting a course of action in the event drug counseling treatment and rehabilitation is required and indicating that a trained referral team is in place;
 - (7) Making a good faith effort to continue to maintain a drug-free workplace through implementation of this section;
- (E) the Contractor has not excluded and will not exclude from participation in, denied the benefits of, subjected to discrimination under, or denied employment to any person in connection with any activity funded under the contract on the basis of race, color, age, religion, national origin, disability, or sex;
- (F) the Contractor, at the time the Contractor submitted a Bid on this contract, had an Illinois Department of Human Rights pre-qualification number or had a properly completed application for same on file with the Illinois Department of Human Rights, as provided for in 44 Illinois Administrative Code 750.210;
- (G) no Village officer, spouse or dependent child of a Village officer, agent on behalf of any Village officer or trust in which a Village officer, the spouse or dependent child of a Village officer or a beneficiary is a holder of any interest in the Contractor; or, if the Contractor's stock is traded on a nationally recognized securities market, that no Village officer, spouse or dependent child of a Village officer, agent on behalf of any Village officer or trust in which a Village officer, the spouse or dependent child of a Village officer or a beneficiary is a holder of more than one percent (1%) of the Contractor, but if any Village officer, spouse or dependent child of a Village officer, agent on behalf of any Village officer or trust in which a Village officer, the spouse or dependent child of a Village officer or a beneficiary is a holder of less than one percent (1%) of such Contractor, the Contractor has disclosed to the Village in writing the name(s) of the holder of such interest.
- (H) no officer or employee of the Village has solicited any gratuity, discount, entertainment, hospitality, loan, forbearance, or other tangible or intangible item having monetary value including, but not limited to, cash, food and drink, and honoraria for speaking engagements related to or attributable to the government employment or the official position of the employee or officer from the Contractor in violation of Chapter 2, Section 8A of the Village Code; and
- (I) the Contractor has not given to any officer or employee of the Village any gratuity, discount, entertainment, hospitality, loan, forbearance, or other tangible or intangible item having monetary value including, but not limited to, cash, food and drink, and honoraria for speaking engagements related to or attributable to the government employment or the official position of the employee or officer in violation of Chapter 2, Section 8A of the Village Code.
- (J) in compliance with the Substance Abuse Prevention on Public Works Projects Act (Public Act 95-0635), the Contractor is a party to a collective bargaining agreement dealing with the subject matter of the Substance Abuse Prevention on Public Works Projects Act or has in place and is enforcing a written program which meets or exceeds the program requirements of the Substance Abuse Prevention on Public Works Projects Act.

CONTRACTOR'S CERTIFICATION

- (K) neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person and that the Contractor and its principals, shareholders, members, partners, or affiliates, as applicable, are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Agreement on behalf of any person or entity named as a Specially Designated National and Blocked Person.

If any certification made by the Contractor or term or condition in this contract changes, the Contractor shall notify the Village of Willowbrook in writing within seven (7) days.

Dated: _____, 2015 Contractor: _____

By: _____

(Name of Owner or Officer) (Title or Office)

STATE OF ILLINOIS)
) ss.
COUNTY OF _____)

I, the undersigned, a notary public in and for the State and County aforesaid, hereby certify that
_____ known to me to be the _____ of
(Name of Owner or Officer) (Title or Office)
_____, appeared before me this day in person and, being first
(Name of Contractor)
duly sworn on oath, acknowledged that he executed the foregoing certification as his free act and deed.

Dated: _____, 2015

Notary Public

END OF SECTION

CONTRACT AGREEMENT

SECTION 00 50 00

THIS AGREEMENT, made this _____ day of _____, 20____ by and between The **Village of Willowbrook** hereinafter called "Owner", and _____, hereinafter called "Contractor".

WITNESSETH:

WHEREAS, Owner has heretofore, solicited Bids for all the Work and improvements and for the doing of all things included within the hereinafter specified and related to the **LED Street Lighting Replacement Contract**.

WHEREAS, Owner did on the _____ day of _____, 20____, find that CONTRACTOR was the lowest responsible Bidder for hereinafter specified Work and did award CONTRACTOR a contract for said Work.

NOW, THEREFORE, for and in consideration of their mutual promises, covenants, undertaking and agreements, the parties hereto do hereby agree as follows:

ARTICLE I – WORK TO BE DONE BY CONTRACTOR

Contractor agrees, at his/her own cost and expense, to do all the Work and to furnish all the labor, materials, equipment and other property necessary to perform and complete all the Work and improvements required for and related to the **LED Street Lighting Replacement Contract** all in full accordance with and in compliance with and as required by the hereinafter specified Contract Documents, including any and all Addenda for said Work, and to do, at his/her own cost and expense, all other things required of the Contractor by said Contract Documents for said Work.

All Work shall be performed in accordance with applicable laws and government agency regulations and rules; Authorities having jurisdiction; OSHA regulations and rules; and any applicable rules and regulations of the **State of Illinois** or **DuPage County** agencies. Furthermore, and as related to the Work, the Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of all public authorities bearing on the safety of persons or property or their protection from damage, injury or loss.

ARTICLE II – CONTRACT DOCUMENTS

The Contract Documents herein named include all of the following component parts, all of which are as fully a part of this Contract as if herein set out verbatim, or if not attached, as if hereto attached:

1. Bid Instructions
2. Bid Requirements
3. Bid Form
4. This Agreement
5. General Requirements and Covenants **per Standard Specifications for Road and Bridge Construction, latest edition**
6. Supplementary Conditions (if any)
7. Contract Specifications
8. All Bonds, Insurance Certificates and Insurance Policies mentioned or referred to in the foregoing Documents.
9. Any and all other Documents or Papers included or referred to in the foregoing Documents.
10. Any and all Addenda to the foregoing.

CONTRACT AGREEMENT

ARTICLE III - CONTRACT PRICE

The Contractor agrees to receive and accept the following total lump sum price (and as may be adjusted for unit price work actually performed) as full compensation for furnishing all materials and equipment and for doing all the Work contemplated and embraced in this Agreement; also for all loss or damage arising out of the nature of the Work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the Work until its acceptance by the Owner, and for all risks of every description connected with the Work; also for well and faithfully completing the Work, and the whole thereof, in the manner and according to and in compliance with the Contract Documents and the requirements of the Engineer under them; also for any and all other things required by the Contract Documents, to wit:

Owner agrees to pay Contractor for performance of Work in accordance with the Contract Documents in current funds as follows:

Total Contract Price of _____ Dollars (\$ _____)
(in writing) (in figures)

This Total Contract Price shall consist of the itemized prices as indicated in the Contractor's Schedule of Prices (including Bonds and Insurance) (breakdown per Section 00 41 00) hereto attached in the amount of

_____ Dollars (\$ _____)
(in writing) (in figures)

Plus the following (List in detail additional work, if any, and corresponding amounts):

ARTICLE IV - CONTRACT TIME

The Work of this Contract shall include all Work in accordance with the Contract Documents prescribed and specified and as related to the **LED Street Lighting Replacement Contract**. The Work of this Contract shall be completed by June 1, 2015. The Contractor agrees to commence Work under this Contract **within ten calendar days** after the receipt from the Owner of a fully executed Agreement and Notice to Proceed and to fully complete all Work included in this Contract to the point of final acceptance by the Owner within the previously specified time period.

CONTRACT AGREEMENT

ARTICLE V – LIQUIDATED DAMAGES

OWNER and CONTRACTOR recognize that time is of the essence in this Agreement and that OWNER will suffer financial loss if the Work is not completed within the time specified above, plus any extensions thereof allowed by the Owner in writing. They 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) CONTRACTOR shall pay OWNER **\$500.00 for each occurrence** that expires after the specified completion time until the Work is completed and Final Acceptance is made by the Owner. In addition, the Contractor agrees that additional liquidated damages shall be paid to the Owner as applicable and in accordance with **Article 108.09** of the Standard Specifications and/or other provisions of the Contract Documents.

ARTICLE VI – PAYMENTS TO CONTRACTOR

General: Owner agrees with said Contractor to employ and does hereby employ, the said Contractor to provide the materials and do all the Work and do all other things hereinabove mentioned according to the terms and conditions hereinabove contained or referred to for the Total Contract Price aforesaid and hereby contracts to pay the same at the time, in the manner and upon the condition set forth or referred to hereinafter; and the said parties for themselves, their heirs, executors, administrators, successors and assigns do hereby agree to the full performance of the covenants herein contained.

Waiver of Lien. The Contractor shall submit Partial Waivers of Lien acceptable to the **Owner** prior to receiving his/her monthly payment and a Final Waiver of Lien before receiving his/her final payment. Three (3) originally signed copies of each of these Waivers shall be delivered to the Engineer together with the Contractors application for payment. A Partial and Final Waiver of Lien shall also be required from each subcontractor and material supplier before a partial or final payment is made.

Application for Payment: Contractor shall submit Applications for Payment on a monthly basis in accordance with the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

Progress Payments: Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, on or about the fifteenth day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values for the materials received and work performed. The Village employs the use of the Illinois Prompt Payment Act.

Retention of Payment: Retention for payment shall be as follows: For the first 50 percent of completed work, there shall be deducted 10 percent to be retained until after the completion of the entire work to the satisfaction of the Owner. After 50 percent or more of the Work is completed, the Owner may, at his/her sole discretion apply a reduction of the withholding to five percent (5%) of the dollar value of all Work satisfactorily completed to date (provided the Contractor is making satisfactory progress and there is no specific cause for greater withholding) and provided that the amount retained is not less than 5 percent of the total adjusted Contract Price.

The Owner may reinstate up to ten percent (10%) withholding (after the first 50% of the Work is completed) if in the opinion of the Owner, and at the Owner's sole discretion that the Contractor is not making satisfactory progress or there is other specific cause for such withholding.

Final Payment: Upon final completion and acceptance of the Work in accordance with the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by the Engineer as provided in said General Conditions.

CONTRACT AGREEMENT

IN WITNESS WHEREOF, the parties hereto have caused this Instrument to be executed the day and year first above written.

Contractor

By _____

(SEAL)

Title _____

ATTEST:

TITLE: _____

VILLAGE OF WILLOWBROOK

Owner

By _____

(SEAL)

Title _____

ATTEST:

TITLE: _____

IMPORTANT

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

END OF SECTION

PERFORMANCE BOND

SECTION 00 60 00

KNOW ALL MEN BY THESE PRESENTS THAT _____

(insert the name and address or legal title of the Contractor)

as Principle, hereinafter called Contractor, and

(insert the legal title of Surety)

as Surety, hereinafter called Surety, are held firmly bound unto the **(OWNER)**

_____ as obligee, hereinafter called the Owner in the full and just sum of

_____ DOLLARS (\$ _____)

lawful money of the UNITED STATES OF AMERICA for the payment of which sum of money well and truly to be made, we bind ourselves, heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered in to a certain written contract, dated the _____ day of

_____, A.D. 20____, with the _____

for _____

complete, as described in the foregoing Contract and Articles of Agreement.

NOW THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if the said Principal shall in all respects well and truly keep and perform the said Contract, and shall pay all sums of money due or to become due, for any labor, materials, apparatus, fixtures or equipment furnished for the purpose of constructing the Work provided in said Contract, and shall remove and replace any defects in workmanship or materials which may be apparent or may develop within a period of one (1) year from the Date of Final Acceptance, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

PERFORMANCE BOND

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

(SEAL)

(SEAL)

(SEAL)

(SEAL)

Principal

Witness:

(If Individual or Firm)

Attest:

(If Corporation)

(SEAL)

(SEAL)

Attest:

(Surety)

END OF SECTION

LABOR AND MATERIAL PAYMENT BOND

SECTION 00 60 20

KNOW ALL MEN BY THESE PRESENTS THAT _____

(insert the name and address or legal title of the Contractor)

as Principle, hereinafter called Contractor, and

(insert the legal title of Surety)

as Surety, hereinafter called Surety, are held firmly bound unto the **OWNER**

_____ as obligee, hereinafter called the Owner in the full and just sum of
_____ DOLLARS (\$ _____)

lawful money of the UNITED STATES OF AMERICA for the payment of which sum of money well and truly to be made, we bind ourselves, heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered in to a certain written contract, dated the _____ day of

_____, A.D. 20____, with the _____

for _____

complete, as described in the foregoing Contract and Articles of Agreement.

NOW THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if the said Principal shall in all respects well and truly keep and perform the said Contract, and shall pay all sums of money due or to become due, for any and all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in the Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, and other fuels, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work, and all insurance premiums on said Work, and for all labor, performed in such Work whether by subcontractor or otherwise, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

LABOR AND MATERIAL PAYMENT BOND

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

(SEAL)

(SEAL)

(SEAL)

(SEAL)
Principal

Witness:

(If Individual or Firm)

Attest:

(If Corporation)

(SEAL)

(SEAL)

Attest:

(Surety)

IMPORTANT: Surety companies executing BONDS must be authorized to transact business in the state where the Project is located.

END OF SECTION

CERTIFICATION OF CONTRACTOR RESPONSIBILITY

SECTION 00 60 40

(To be submitted at Preconstruction Meeting)

The following information is hereby submitted. It is understood that this Certificate shall be submitted prior to the initiation of executing the Work of this Contract and prior to or at the time of any change in the personnel assigned as the construction supervisor or safety supervisor. It is further understood that the construction supervisor and the safety supervisor shall be available on a twenty four (24) hour will call basis.

Date: _____ By: _____
(Name and Title)

PROJECT
LED Street Lighting Replacement Contract
Willowbrook, Illinois

Construction Supervisor:

Name _____

Address _____

Phone _____

Fax _____

Mobile _____

Email _____

Safety Supervisor:

Name _____

Address _____

Phone _____

Fax _____

Mobile _____

Email _____

END OF SECTION

INSURANCE REQUIREMENTS

SECTION 00 60 50

Before commencing Work, the Contractor shall obtain at his/her own expense, and agree to keep in effect during the life of this Contract, as a minimum requirement, the following insurance in a company or companies acceptable to the Owner; (and authorized to transact business under the laws of the **State of Illinois**):

1. The Contractor shall purchase and maintain liability insurance as required until all Work required under the Contract has been completed and accepted by the Owner, except as otherwise provided. The insurance required shall be written for not less than the following limits of liability:
 - a. **WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE.** Procure and maintain worker's Compensation Insurance in strict accordance with requirements of applicable Illinois Worker's Compensation Act, as amended, for all employees to be engaged in work under this Contract. Provide Employer's Liability Insurance (including Occupational Disease) in an amount of not less than five hundred thousand (\$500,000) for protection of employees not otherwise protected.
 - b. **COMMERCIAL GENERAL LIABILITY.** Required liability insurance coverage shall be written in the occurrence form and shall provide coverage for operations of the Contractor; operations of subcontractors (contingent or protective liability); completed operations; broad form property damage and hazards of explosion, collapse and underground; and contractual liability.

The coverage shall provide by an endorsement in the appropriate manner and form, that the Village, its officials, agents and representatives shall be names as additional insureds with respect to the policies and any umbrella excess liability coverage for occurrences arising in whole or in part out of the Work and operations performed. The Village may accept a separate owner's protective liability policy in lieu of the Village, its officers, and employees being named insureds on the Contractor's policies.

The general aggregate limit shall be endorsed on a per-project basis.

General Aggregate Limit	\$2,000,000
Products-Completed Operations Aggregate Limit	\$2,000,000
Each Occurrence Limit	\$1,000,000

- c. **AUTOMOBILE LIABILITY AND PROPERTY DAMAGE INSURANCE.** Comprehensive Automobile Liability and Property Damage Insurance coverage on all vehicles used in connection with contract, whether owned, un-owned, or hired. Liability limits not less than One Million Dollars (\$1,000,000) combined single limit.
 - d. **CONTRACTUAL LIABILITY COVERAGE.** Include "Broad Form Contractuai Liability Coverage" endorsement with each and every policy for liability insurance carried by each Contractor and Subcontractor.
 - e. **UMBRELLA LIABILITY.** Umbrella liability insurance excess of primary insurance in amount of Five Million Dollars (\$5,000,000) per occurrence/Five Million Dollars (\$5,000,000) in the aggregate and following form on primary coverage as to additional insureds shall be carried by the Contractor. At the Owner's discretion, this amount may be reduced for sub-contractors.
2. All insurance shall remain in force during the period covering occurrences happening on or after the effective date and remain in effect during performance of the Work and at all times thereafter when the Contractor may be correcting, removing, or replacing defective Work until notification of the date of final inspection.
3. Termination or refusal to renew shall not be made without 30 days' prior written notice to the Village by the insurer, and the policies shall be endorsed so as to remove any language restricting or limiting liability concerning this obligation.
4. All costs for insurance as specified herein will be considered as included in the cost of the Contract. The Contractor shall, at its expense and risk of delay, cease operations if the insurance required is terminated or reduced below the required amounts of coverage. Coverage in the minimum amounts set forth herein

INSURANCE REQUIREMENTS

shall not be construed to relieve the Contractor from its obligation to indemnify in excess of the coverage according to the Contract.

5. **DEDUCTIBLES AND SELF-INSURED RETENTIONS.** Any deductibles or self-insured retentions must be declared to and approved by the Village. At the option of the Village, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officials, agents, employees and volunteers, in which case the Village shall pay any additional costs associated with such reduced deductibles; or the Contractor shall procure a bond, at the Village's expense, guaranteeing payment of losses and related investigation, claim administration and defense expenses.
6. **OTHER INSURANCE PROVISIONS.** The policies are to contain, or be endorsed to contain, the following provisions:
 - a. **General Liability and Automobile Liability Coverages.**
 - 1) The Village, its officials, agents and representatives are to be named as additional insureds as respects liability arising out of the Contractor's Work, including activities performed by or on behalf of the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the Village, its officials, agents and employees.
 - 2) The Contractor's insurance coverage shall be primary as respects the Village, its officials, agents and employees. Any insurance or self-insurance maintained by the Village, its officials, agents and employees shall be in excess of Contractor's insurance and shall not contribute with it.
 - 3) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Village, its officials, agents and employees.
 - 4) The Contractor's insurance shall contain a Severability of Interests/Cross Liability clause or language stating that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - 5) If any commercial general liability insurance is being provided under an excess or umbrella liability policy that does not "follow form," then the Contractor shall be required to name the Village, its officials, agents and employees as additional insureds.
 - 6) All general liability coverages shall be provided on an occurrence policy form. Claims-made general liability policies will not be accepted.
 - b. **Worker's Compensation and Employer's Liability Coverage.** The insurer shall agree to waive all rights of subrogation against the Village, its officials, agents and employees for losses arising from Work performed by Contractor.
7. **VERIFICATION OF COVERAGE.** The Contractor shall, prior to the Village's executing the Contract, furnish the Village with certificates of insurance naming the Village, its officials, agents, employees and volunteers as additional insureds (Exhibit "Sample Certificate") and with original endorsements affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements may be on forms provided by the Village and are to be received and approved by the Village before any Work commences. The Village reserves the right to demand full, certified copies of the insurance policies and endorsements. If demanded, the Contractor shall promptly furnish the Village with certified copies of the insurance policies and endorsements demanded. In no event shall any failure of the Village to receive policies or certificates or to demand receipt be construed as a waiver of the Contractor's obligation to obtain and keep in force the required insurance.
8. **SUBCONTRACTORS.** The Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

INSURANCE REQUIREMENTS

9. ASSUMPTION OF LIABILITY. The Contractor assumes liability for all injury to or death of any person or persons including employees of the contractor, any subcontractor, any supplier or any other person and assumes liability for all damage to property sustained by any person or persons occasioned by any work performed pursuant to this agreement.
10. The Contractor agrees to indemnify and save harmless the Owner, **Christopher B. Burke Engineering, Ltd.**, and all of their officers, partners, agents and employees from and against all loss or expense (including court costs and attorney's fees) by reason of liability imposed by law upon Owner and **Christopher B. Burke Engineering, Ltd.** for damages because of bodily injury, including death at any time, resulting therefrom sustained by any person or persons or on account of damage to or destruction of property, real or personal, including loss of use thereof, arising out of or in consequence of performance of this Work, whether such injuries to or death of persons or damage to property is due or claimed to be due to the negligence of the Contractor, his/her Subcontractors, the Owner, **Christopher B. Burke Engineering, Ltd.**, their officers, partners, agents, and employees except only such injury, death or damage as shall have been occasioned by the sole negligence of the Owner or **Christopher B. Burke Engineering, Ltd.**

END OF SECTION

EXHIBIT (SAMPLE CERTIFICATE)

ACORD™ CERTIFICATE OF LIABILITY INSURANCE						DATE (MM/DD/YYYY) Completed	
PRODUCER Fully Completed				THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.			
				INSURERS AFFORDING COVERAGE		NAIC #	
INSURED COVERAGES Fully Completed				INSURER A: Name of Insurance Company		Completed	
				INSURER B: Name of Insurance Company		Completed	
				INSURER C: Name of Insurance Company		Completed	
				INSURER D: Name of Insurance Company		Completed	
THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.							
INSUR LTR	ADD'L INCRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXP. DATE (MM/DD/YY)	LIMITS	
A	X	GENERAL LIABILITY CG001 <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OWNERS & CONT PROT (If REQUIRED) <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIER PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC	Policy Number	Policy Start Date	Policy End Date	EACH OCCURRENCE	\$ 1,000,000
						DAMAGE TO RENTED PREMISES (Ea. Occur.)	\$ 50,000
						MED EXP (Any one person)	\$ 5,000
						PERSONAL & ADV INJURY	\$ 1,000,000
						GENERAL AGGREGATE	\$ 2,000,000
						PRODUCTS-COMP/OF AGG	\$ 1,000,000
A		AUTOMOBILE LIABILITY CA001 <input type="checkbox"/> ANY AUTO CA001 <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS <input type="checkbox"/>	Policy Number	Policy Start Date	Policy End Date	COMBINED SINGLE LIMIT (Ea. Accident)	\$ 1,000,000
						BODILY INJURY (PER PERSON)	\$
						BODILY INJURY (PER ACCIDENT)	\$
						PROPERTY DAMAGE (PER ACCIDENT)	\$
		GARAGE LIABILITY				AUTO ONLY-EA ACCIDENT	\$
		<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC	\$
						AUTO ONLY: AGG	\$
B	X	EXCESS UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$	Policy Number	Policy Start Date	Policy End Date	EACH OCCURRENCE	\$5,000,000
						AGGREGATE	\$5,000,000
C		WORKERS COMPENSATION AND EMPLOYERS LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? NO If yes, describe under SPECIAL PROVISIONS below	Policy Number	Policy Start Date	Policy End Date	WC STATUS- c OTHER	
						TORY LIMITS	
						E.L. EACH ACCIDENT	\$1,000,000
						E.L. DISEASE-EA EMPLOYEE	\$1,000,000
						E.L. DISEASE-POLICY LIMIT	\$1,000,000
		OTHER	Policy Number	Policy Start Date	Policy End Date		
		Professio					
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS List project number, location and description. No endorsements or additional forms modify or limit coverage provided to additional insured. Coverage provided to the additional insured is primary.							
CERTIFICATE HOLDER				CANCELLATION			
Additional Insured: Village of Glendale Heights, its officials, employees, agents and volunteers.				SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT.			
				SIGNATURE OF AUTHORIZED AGENT			

CLARIFICATION/INTERPRETATION REQUEST

SECTION 00 60 95

Project:	Date:
Contractor:	Clarification Request No.:
Contract:	Re: Specification Section/Drawing No.:
Attn:	
This is a request for a clarification/interpretation on the following:	
Prepared By:	Date Response Needed:
Response:	
Response Prepared By:	
Response Returned to Contractor On:	
cc: Owner	

END OF SECTION

Du Page County Prevailing Wage for January 2015

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
ASBESTOS ABT-GEN		ALL		38.200	38.700	1.5	1.5	2.0	13.78	10.12	0.000	0.500
ASBESTOS ABT-MEC		BLD		35.100	37.600	1.5	1.5	2.0	11.17	10.76	0.000	0.720
BOILERMAKER		BLD		44.240	48.220	2.0	2.0	2.0	6.970	17.54	0.000	0.350
BRICK MASON		BLD		42.580	46.840	1.5	1.5	2.0	9.850	13.60	0.000	1.030
CARPENTER		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
CEMENT MASON		ALL		39.250	41.250	2.0	1.5	2.0	12.70	17.14	0.000	0.450
CERAMIC TILE FNSHER		BLD		35.810	0.000	1.5	1.5	2.0	10.55	8.440	0.000	0.710
COMMUNICATION TECH		BLD		32.650	34.750	1.5	1.5	2.0	9.550	15.16	1.250	0.610
ELECTRIC PWR EQMT OP		ALL		37.890	51.480	1.5	1.5	2.0	5.000	11.75	0.000	0.380
ELECTRIC PWR GRNDMAN		ALL		29.300	51.480	1.5	1.5	2.0	5.000	9.090	0.000	0.290
ELECTRIC PWR LINEMAN		ALL		45.360	51.480	1.5	1.5	2.0	5.000	14.06	0.000	0.450
ELECTRIC PWR TRK DRV		ALL		30.340	51.480	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRICIAN		BLD		38.160	41.980	1.5	1.5	2.0	9.550	18.29	4.680	0.680
ELEVATOR CONSTRUCTOR		BLD		49.900	56.140	2.0	2.0	2.0	12.73	13.46	3.990	0.600
FENCE ERECTOR	NE	ALL		35.840	37.840	1.5	1.5	2.0	13.01	11.51	0.000	0.300
FENCE ERECTOR	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
GLAZIER		BLD		40.000	41.500	1.5	2.0	2.0	12.49	15.99	0.000	0.940
HT/FROST INSULATOR		BLD		48.450	50.950	1.5	1.5	2.0	11.47	12.16	0.000	0.720
IRON WORKER	E	ALL		43.000	45.000	2.0	2.0	2.0	13.45	20.65	0.000	0.350
IRON WORKER	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
LABORER		ALL		38.000	38.750	1.5	1.5	2.0	13.78	10.12	0.000	0.500
LATHER		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
MACHINIST		BLD		44.350	46.850	1.5	1.5	2.0	6.760	8.950	1.850	0.000
MARBLE FINISHERS		ALL		31.400	32.970	1.5	1.5	2.0	9.850	13.10	0.000	0.600
MARBLE MASON		BLD		41.780	45.960	1.5	1.5	2.0	9.850	13.42	0.000	0.760
MATERIAL TESTER I		ALL		28.000	0.000	1.5	1.5	2.0	13.78	10.12	0.000	0.500
MATERIALS TESTER II		ALL		33.000	0.000	1.5	1.5	2.0	13.78	10.12	0.000	0.500
MILLWRIGHT		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
OPERATING ENGINEER		BLD 1		47.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD 2		45.800	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD 3		43.250	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD 4		41.500	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD 5		50.850	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD 6		48.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD 7		50.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		FLT		35.000	35.000	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY 1		45.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY 2		44.750	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY 3		42.700	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY 4		41.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY 5		40.100	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY 6		48.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY 7		46.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
ORNAMNTL IRON WORKER E		ALL		43.900	46.400	2.0	2.0	2.0	13.36	17.24	0.000	0.650
ORNAMNTL IRON WORKER W		ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
PAINTER		ALL		41.730	43.730	1.5	1.5	1.5	10.30	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIIVER		ALL		43.350	45.350	1.5	1.5	2.0	13.29	13.75	0.000	0.630
PIPEFITTER		BLD		46.000	49.000	1.5	1.5	2.0	9.000	15.85	0.000	1.780
PLASTERER		BLD		41.250	43.760	1.5	1.5	2.0	9.700	13.08	0.000	0.980
PLUMBER		BLD		46.650	48.650	1.5	1.5	2.0	13.18	11.46	0.000	0.880
ROOFER		BLD		39.700	42.700	1.5	1.5	2.0	8.280	10.06	0.000	0.530
SHEETMETAL WORKER		BLD		44.000	46.000	1.5	1.5	2.0	10.65	13.06	0.000	0.820
SPRINKLER FITTER		BLD		49.200	51.200	1.5	1.5	2.0	11.25	9.500	0.000	0.450
STEEL ERECTOR	E	ALL		42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350
STEEL ERECTOR	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
STONE MASON		BLD		42.580	46.840	1.5	1.5	2.0	9.850	13.60	0.000	1.030
SURVEY WORKER-> NOT IN EFFECT		ALL			37.000	37.750	1.5	1.5	2.0	12.97	9.930	0.000 0.500
TERRAZZO FINISHER		BLD		37.040	0.000	1.5	1.5	2.0	10.55	10.32	0.000	0.620
TERRAZZO MASON		BLD		40.880	43.880	1.5	1.5	2.0	10.55	11.63	0.000	0.820
TILE MASON		BLD		42.840	46.840	1.5	1.5	2.0	10.55	10.42	0.000	0.920
TRAFFIC SAFETY WRKR		HWY		32.750	34.350	1.5	1.5	2.0	6.550	6.450	0.000	0.500
TRUCK DRIVER		ALL 1		32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150

TRUCK DRIVER	ALL 2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TUCKPOINTER	BLD	41.620	42.620	1.5	1.5	2.0	9.850	12.61	0.000	0.650

Legend: RG (Region)

TYF (Trade Type - All, Highway, Building, Floating, Oil & Chip, Rivers)

C (Class)

Base (Base Wage Rate)

FRMAN (Foreman Rate)

M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.)

OSA (Overtime (OT) is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations**DUPAGE COUNTY****IRON WORKERS AND FENCE ERECTOR (WEST)** - West of Route 53.

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.

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.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including telephone and data inside wire, interconnect, terminal equipment, central offices, PBX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft.; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes; Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarifier; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ARG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 275 cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types; Cretor Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Full Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc.; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 75 Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blasters; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes; Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers, Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

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. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turntrailers or Turntrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turntrailers or turnpulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

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.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

DRAWINGS

SECTION 00 80 50

The following Drawings shall be made part of these Bid Documents and shall form a basis for the Contract Price.

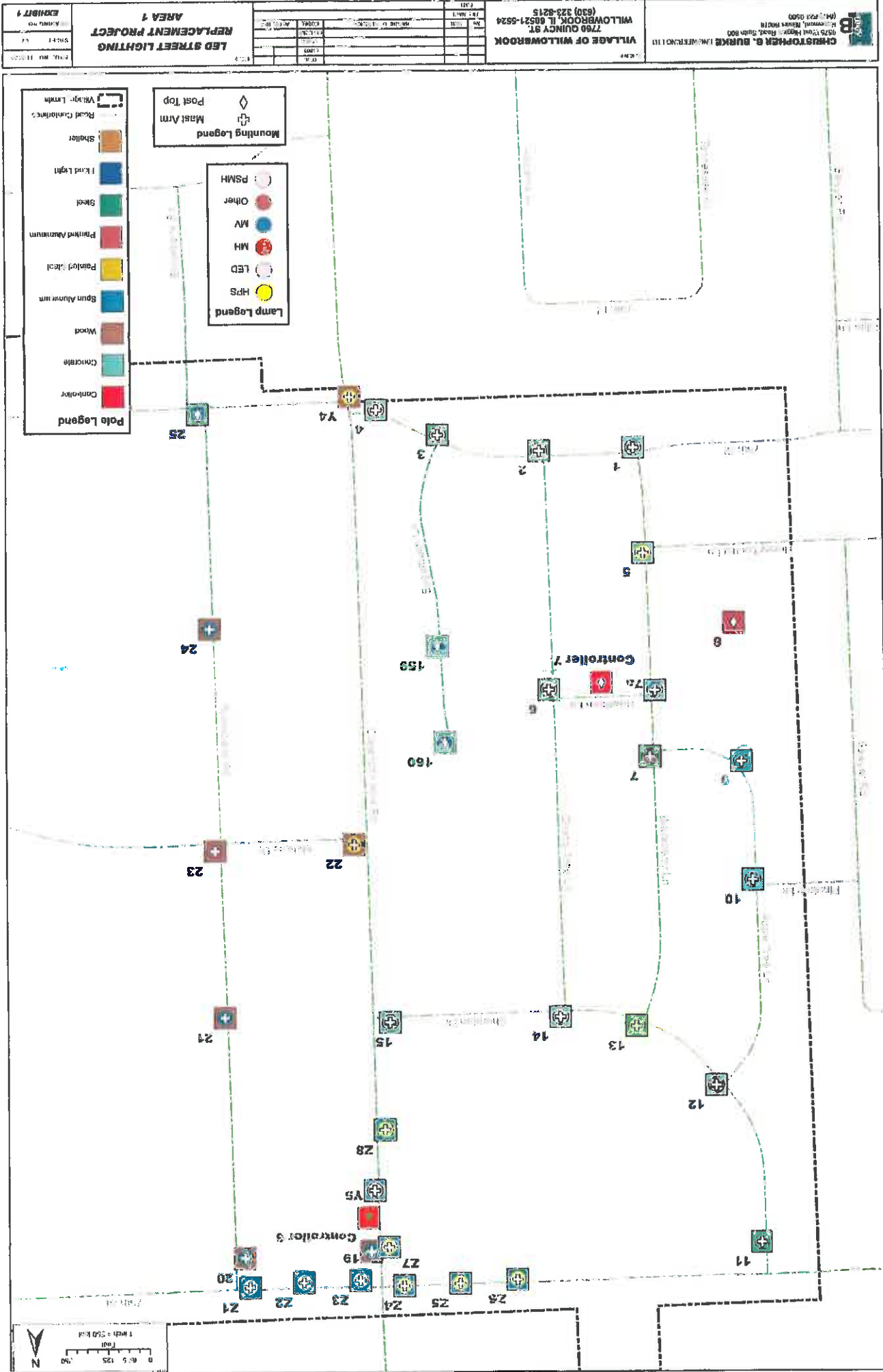
<u>DWG NO.</u>	<u>DRAWING TITLE</u>
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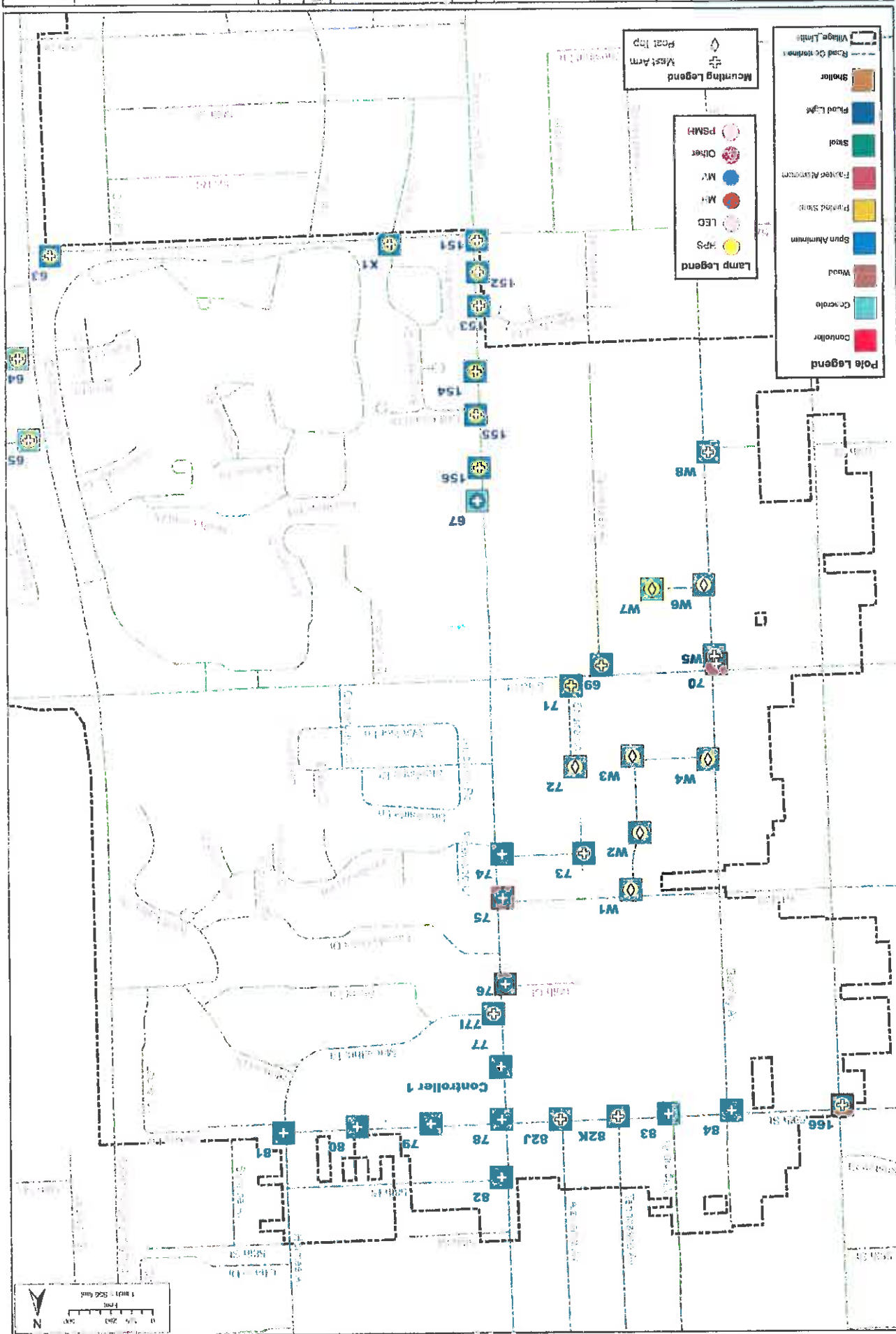
1	LED Street Lighting Replacement Exhibit (Area 1)
2	LED Street Lighting Replacement Exhibit (Area 2)
3	IDOT Standard 701301
4	IDOT Standard 701427
5	Proposed Sample GE Evolve Luminaire Catalog Cut
6	Proposed Sample Cree XSP2 Luminaire Catalog Cut

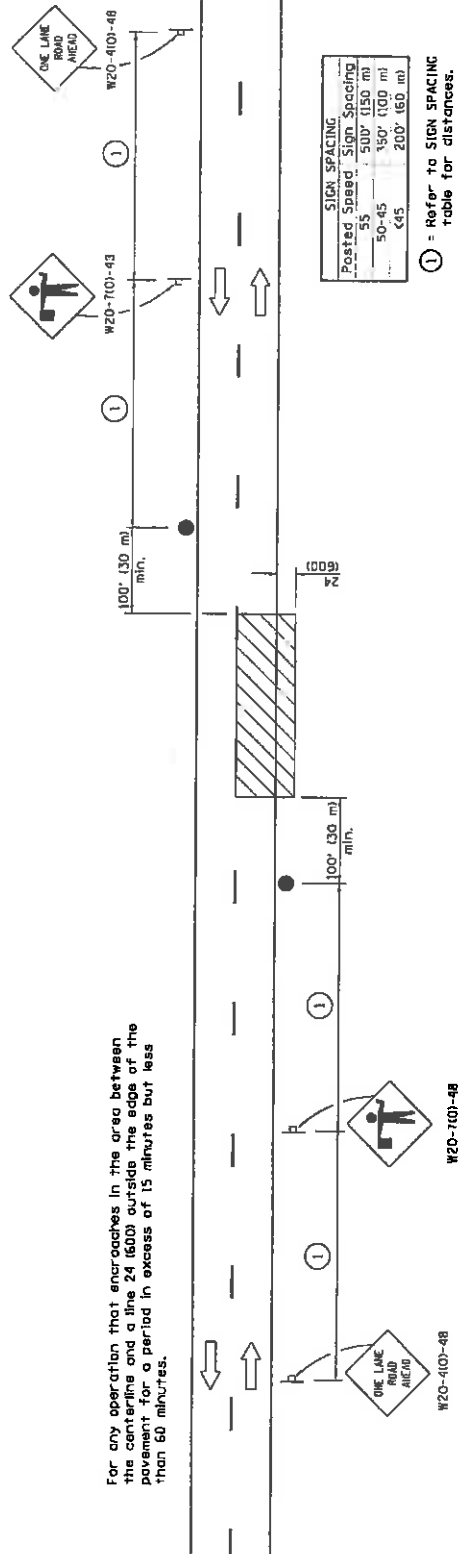
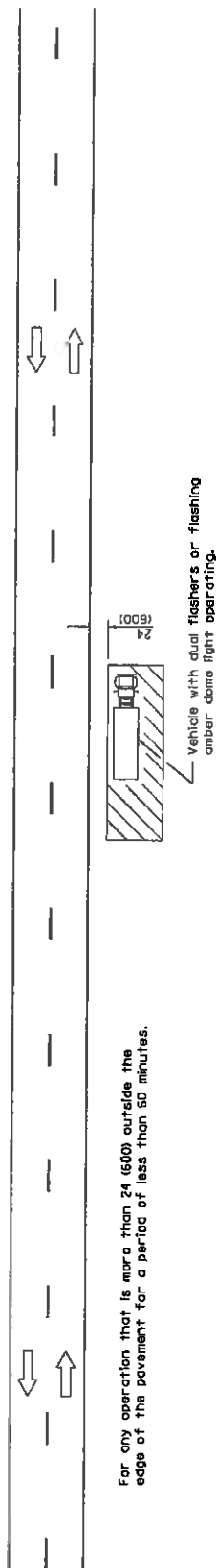
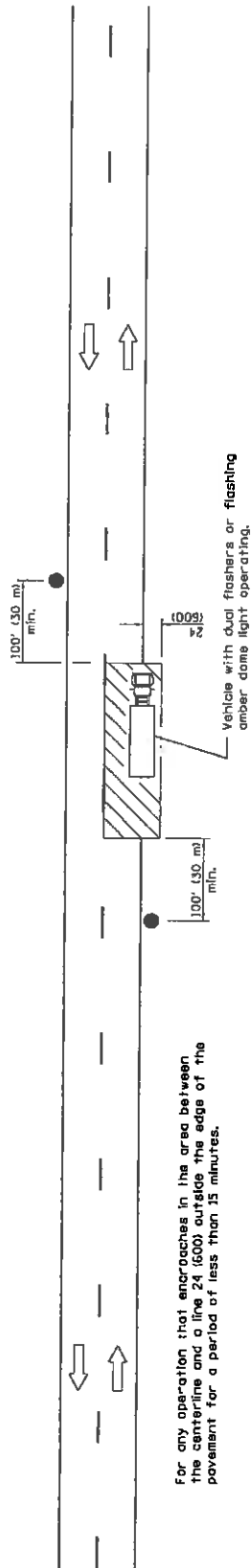
Note: Photos, Information and Record Drawings presented herein are offered for information only and may not reflect all existing conditions. Photos are not intended to depict all Work or conditions. Contractor shall be responsible for inspecting the site and determining actual conditions and Work to be performed.

If awarded the Contract and before starting Work, Contractor shall field verify for accuracy all Drawings pertinent to this project and conditions as noted thereon. Any discrepancies found shall be brought to the attention of the Owner immediately. If such discrepancies will result in changes to Contractor's prices, these changes shall be discussed with the Owner and executed before Contractor starts Work. The Owner will not accept any changes in Contract Price after start of Work which may or may not be due to any discrepancy in any Drawing.

END OF SECTION







Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
45	200' (60 m)

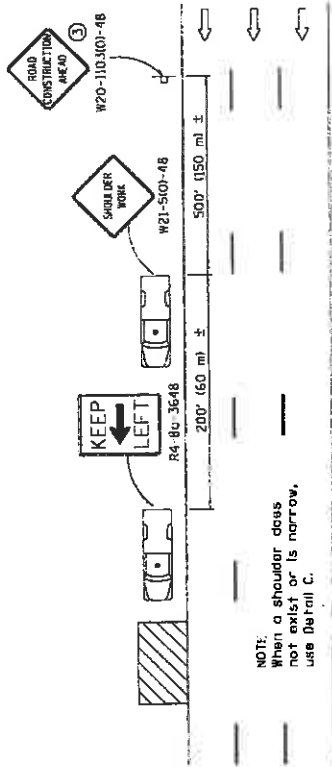
① = Refer to SIGN SPACING table for distances.

At dimensions are in inches (millimeters) unless otherwise shown.

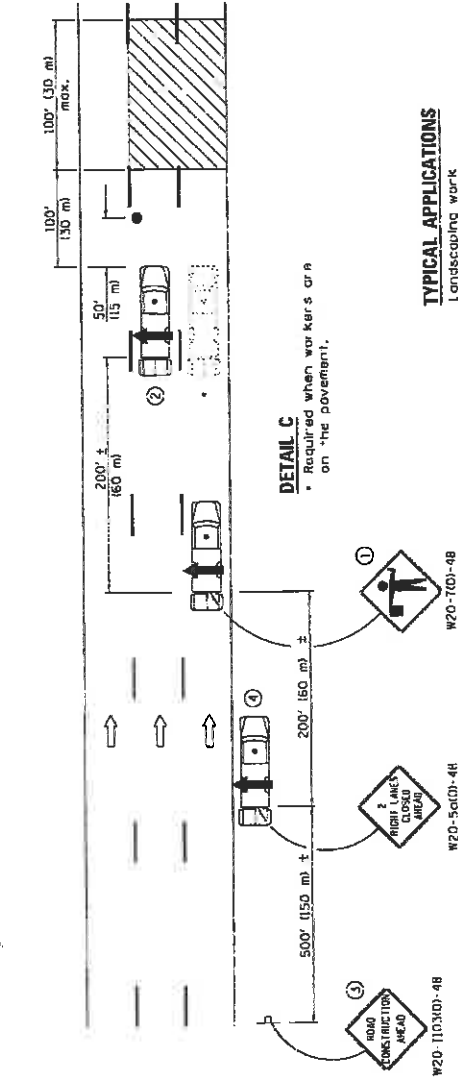
- TYPICAL APPLICATIONS**
- Marking patches
 - Field survey
 - String line
 - Utility operations
 - Cleaning up debris on pavement
- SYMBOLS**
- Work area
 - Sign on portable or permanent support
 - Flagger with traffic control sign

LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

STANDARD 701301-04



DETAIL A

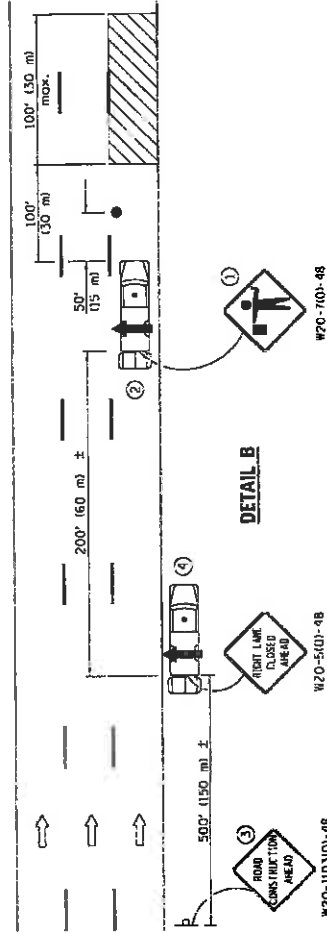


DETAIL C

* Required when workers are on the pavement.

TYPICAL APPLICATIONS

- Landscaping work
- Utility work
- Pavement marking
- Weed spraying
- Roadometer measurements
- Debris cleanup
- Crack pouring



DETAIL B

1. Flaggers are required when workers are on the pavement.
2. For stopping operations only. See sign arrow detail on this standard.
3. For stationary operations which are on the roadway or shoulder, greater than 15 minutes and up to 1 hour.
4. Onit truck, attenuator and arrow board when no shoulder exists due to curb and gutter.



W20-110.3(0)-48
(appropriate arrow)
(when stopping only)

GENERAL NOTES

This Standard is used where any vehicle, equipment, workers or their activities will require: 1) stationary operations up to 1 hour, or 2) a continuous or intermittent moving operation where the average speed of movement is greater than 1 mph (2 km/h).

This Standard is also applicable when work is being performed in the left lane or on the median shoulder. Under these conditions, KEEP RIGHT signs shall be substituted for KEEP LEFT signs and arrow board indications shall be directed to the right.

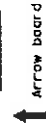
The distance between work and shadow vehicles may vary according to terrain or paint / crack sealing time.

All dimensions are in inches (millimeter) unless otherwise shown.

LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH

STANDARD 701827-03

SYMBOLS



Work area



Truck/Trailer mounted attenuator

Flagger with traffic control sign



Ordering Number Logic

Available Specification Grade (Options) (ERS2)



ERS2 0 E3 E1 5 40 7 GRAY DLR

E = Evolve R = Roadway S = Scalable 2 = Double Module Optical Assembly	0 = 120-277 1 = 120 2 = 208 3 = 240 4 = 277 H = 347-480 D = 347 5 = 480	Product Tier *3 = Specification Grade See Charts for all levels	A1 = Extra Narrow Asymmetric (Narrow) B1 = Asymmetric (Medium) C1 = Asymmetric (Short) D1 = Asymmetric (Forward) E1 = Asymmetric (Medium)	5 = 525mA 7 = 700mA 1 = 1050mA	40 = 4000K 50 = 5000K* NOTE: For 1050mA drive current, nominal color temperature (CCT) = 5300K	1 = None 2 = PE Rec. 4 = PE Rec. with Shorting Cap 5 = PE Rec. with Control 7 = GE Dimming 5-Pin PE Receptacle *† 9 = GE Dimming 5-Pin PE Receptacle with Shorting Cap *† † When ordering PE function socket 7 or 9, a dimming driver add after dimming driver (D=Dimming) must also be ordered under the "OPTIONS" column * Order dimming control PE as a separate item NOTE: A= ANSI C136.41 7-Pin dimming receptacle, contact manufacturer	BLCK = Black GRAY = Gray	B = Internal Bubble level D = Dimming* F = Fusing G = External Bubble Level L = Tool-Less Entry R = Additional Secondary Surge Protection Device T = GE Energy Extreme Surge Protection per IEEE/ANSI C62.41.2-2002. - Rating 1 - 10kV/5kA Location Category (120 events). - Rating 2 - 6kV/3kA Location Category C-Low (5000 events). XXX = Special Options * When ordering Dimming PE Receptacle 7, 9 or A, D=Dimming driver must be selected under "OPTIONS" column NOTE: If no dimming receptacle under PE Function is selected and D=Dimming is selected under OPTIONS, 0-10v dimming leads will be provided with access through slipfilter opening in unit
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525 mA		PHOTO-METRIC TYPE	DELTA CURRENT	TYPICAL SYSTEM WATTAGE		TYPICAL INITIAL LUMENS		B U G			TYPICAL INITIAL LPW		IES FILE NUMBERS	
PRODUCT ID	OPTICAL CODE			120-277V	4000K	5000K	6000K	RATING	RATING	RATING	4000K	5000K	4000K	5000K
ERS2	D3	A1	525mA	88	8000	8000	8000	2	0	2	91	91	456404	456429
ERS2	E3		525mA	99	9100	9100	9100	3	0	2	92	92	456405	456430
ERS2	F3		525mA	112	10300	10300	10300	3	0	2	92	92	456406	456431
ERS2	G3		525mA	125	11500	11500	11500	3	0	2	92	92	456407	456432
ERS2	H3		525mA	138	12700	12700	12700	3	0	3	92	92	456408	456433
ERS2	D3	B1	525mA	88	8200	8200	8200	2	0	1	93	93	456409	456434
ERS2	E3		525mA	99	9300	9300	9300	2	0	1	94	94	456410	456435
ERS2	F3		525mA	112	10600	10600	10600	3	0	2	95	95	456411	456436
ERS2	G3		525mA	125	11800	11800	11800	3	0	2	94	94	456412	456437
ERS2	H3		525mA	138	13000	13000	13000	3	0	2	94	94	456413	456438
ERS2	D3	C1	525mA	88	8200	8200	8200	2	0	1	93	93	456414	456439
ERS2	E3		525mA	99	9300	9300	9300	2	0	1	94	94	456415	456440
ERS2	F3		525mA	112	10600	10600	10600	3	0	1	95	95	456416	456441
ERS2	G3		525mA	125	11800	11800	11800	3	0	2	94	94	456417	456442
ERS2	H3		525mA	138	13000	13000	13000	3	0	2	94	94	456418	456443
ERS2	D3	D1	525mA	88	8000	8000	8000	2	0	1	91	91	456419	456444
ERS2	E3		525mA	99	9100	9100	9100	2	0	2	92	92	456420	456445
ERS2	F3		525mA	112	10300	10300	10300	2	0	2	92	92	456421	456446
ERS2	G3		525mA	125	11500	11500	11500	2	0	2	92	92	456422	456447
ERS2	H3		525mA	138	12700	12700	12700	3	0	2	92	92	456423	456448
ERS2	D3	E1	525mA	88	8200	8200	8200	2	0	3	93	93	456424	456449
ERS2	E3		525mA	99	9300	9300	9300	2	0	2	94	94	456425	456450
ERS2	F3		525mA	112	10600	10600	10600	3	0	2	95	95	456426	456451
ERS2	G3		525mA	125	11800	11800	11800	3	0	2	94	94	456427	456452
ERS2	H3		525mA	138	13000	13000	13000	3	0	2	94	94	456428	456453

NOTES:

- Max Operating Ambient 50°C
- 347-480V Not Available
- For T Option Availability Contact Manufacturer

Lumen Maintenance

- Projected L92 (10K) ≥ 50,000 at Ta 25C
- Projected L70 (10K) > 100,000 at Ta 25C

Based on 10,000h LM-80 data for Nichia 219B SQTMLH17005

XSP2™ IP66 — BXSPA23

XSP Series LED Street Light - IP66 - Double Module
Horizontal / Vertical Tenon Mount - Type III

Product Description

Designed from the ground up as a totally optimized LED street light system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieves better optical control with our NanoOptic® Precision Delivery Grid™ optic. Cree XSP Series LED Street Light is the best alternative for traditional street lighting with better payback and better performance.

Performance Summary

Utilizes BetaLED® Technology

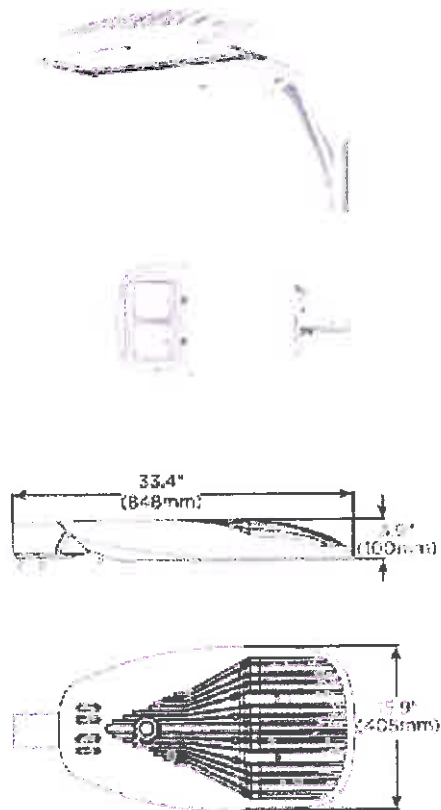
NanoOptic® Precision Delivery Grid™ optic

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K)

Limited Warranty†: 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish

Accessories



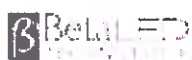
Ordering Information

Example: BXSPA23H-A-U5-OPTIONS

BXSP	A	Z	S	H	A	U	S	Options
Product	Version	Mounting	Optic	Power	Power Distribution	Voltage	Color Options	
BXSP	A	2 Horizontal / Vertical Tenon	S Type III	H 4000K P 5700K	A 102W	U Universal 120-277V V 347-480V*	S Silver (Standard) T Black Z Bronze B Platinum Br Bronze W White	F Fuse <ul style="list-style-type: none"> When code dictates fusible, use time delay fuse Not available with V voltage K Occupancy Control <ul style="list-style-type: none"> Refer to Occupancy Control spec sheet for details N Utility Label and NEMA Photocell Receptacle <ul style="list-style-type: none"> Includes U option Refer to Field Adjustable Output spec sheet for details Q Field Adjustable Output <ul style="list-style-type: none"> Refer to Field Adjustable Output spec sheet for details R NEMA Photocell Receptacle <ul style="list-style-type: none"> Photocell or others U Utility <ul style="list-style-type: none"> Label per ANSI C136.19 Includes optional wattage label that indicates the maximum available wattage of the luminaire Includes Q option Refer to Field Adjustable Output spec sheet for details

* See www.cree.com/lighting/faq/product/warranty for warranty terms

* 347-480V is 3-phase 3-wire, 4-wire, delta, transformer. For single power for 347-480V, refer to the Luminaire Q Spec. Downloaded per 1 Luminaire Installation and Safety Instructions



Rev Date: 06/23/13



TECHNICAL SPECIFICATIONS

SUMMARY OF WORK

SECTION 01 10 00

PART 1- GENERAL

1.01 DESCRIPTION OF WORK

The Work to be performed consists of furnishing labor, materials, equipment, coordination and supervision as required by the Contract Documents for design, construction, installation, testing and placing into operation the **LED Street Lighting Replacement Units within the Village of Willowbrook** shown on the Drawings, including any and all associated accessories.

The types of Work to be performed in accordance with subsequent Sections of these Specifications and as shown on the Drawings include but are not limited to Lighting and Electrical Work.

1.02 LOCATION OF THE WORK

The work site limits are as shown on the Drawings and are within the Village of Willowbrook Village limits.

1.03 PHYSICAL CONDITIONS

A. General

The sites on which the Work is to be performed has limited access and boundary constraints, all of which the Contractor accepts full responsibility. Any construction easement(s) or staging area(s) required by the Contractor (other than those that may be shown on the Drawings) shall be the responsibility of the Contractor. Any specialized machinery and/or equipment required due to the limited access/boundary constraints/type of work to be performed shall be the responsibility of the Contractor.

B. Staging Areas

The Village will provide a staging area at the Village's Public Works yard. Prior to staging any equipment, materials, and/or appurtenances as may be required to perform the Work, the Contractor shall obtain the permission of the Owner. Any restoration of a damaged area attributed to Contractor staging shall be the Contractor's responsibility. Any special clean up required to restore disturbed areas shall be considered incidental to the Contract.

1.04 ACCESS TO JOB SITE

Access to the project site is possible via local roads.

SUMMARY OF WORK

The Contractor shall investigate road conditions such as clearances, restrictions, bridge load limits and other limitations which may affect transportation.

The Contractor shall comply with the conditions and regulations of controlling agencies of public roads, access, rights-of-way restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress at the job site.

1.05

PROJECT BOUNDARIES AND CONTRACTORS USE OF PREMISES

The boundaries of the project are indicated on the Drawings. Subject to restrictions placed upon the Contractor by the Owner, the Contractor may locate his/her facilities within these boundaries as will best suit his/her operations.

At no time shall the Contractor locate his/her facilities, equipment, or materials in a manner to obstruct access or in any way interfere with the operation of the surrounding existing facilities.

1.06

ADDRESSING CORRESPONDENCE

All mail pertinent to the Work shall be sent by special delivery unless delivery by regular mail can be accomplished within three days. Receipt of such mail will be promptly acknowledged when acknowledgement is requested. If acknowledgement is requested and is not received in reasonable time, duplicate copies shall be forwarded.

All correspondence relating to contractual matters, including prices, delivery and changes in Scope of Work, shall be directed to the Owner with two copies to the Engineer.

The address of the **Owner** is:

**Village of Willowbrook
7760 Quincy Street
Willowbrook, IL 60527**

Attention: **Tim Halik, Village Administrator**

The address of the Engineer will be designated at the Preconstruction Conference as required in Section 01 31 00.

A Directory for exchange of correspondence and distribution of Contractor's drawings and data, to be compiled and distributed after the signing of the Contract, will provide pertinent names and addresses of participants in the Contract.

SUMMARY OF WORK

PART 2- PRODUCTS

(As specified throughout these Specifications.)

PART 3- EXECUTION

(As specified throughout these Specifications.)

PART 4- MEASUREMENTS AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

RESPONSIBILITIES OF CONTRACTOR

SECTION 01 10 10

PART 1- GENERAL

1.01 SCOPE

This Section establishes certain minimum requirements of Contractor's responsibilities for which the Contractor shall be fully liable for during the life of the Project and for the Work of this Contract. Specific details related to the Contractor's specific responsibilities shall be in accordance with applicable requirements of other Sections of these Specifications and/or as shown on the Drawings.

1.02 RESPONSIBILITY OF CONTRACTOR

A. General

The Contractor shall perform all Work of this Contract as shown on the Drawings and as specified in a neat and orderly manner, consistent with the Work Schedule. The Contractor shall be responsible for coordinating all phases of his/her Work with the work of others so as not to interfere with that work being performed by others. The Contractor shall be responsible for notification(s) prior to commencement of Work and/or during construction activities. The Contractor shall be responsible for providing at the Project Site a qualified construction supervisor or Superintendent.

B. Work Schedule

Within ten (10) days after receiving the Notice to Proceed, the Contractor shall submit all items, and information required by Section 01 33 00 including but not limited to a Work Schedule showing the progress to be made on the major portions of the Work; such Work Schedule to be designated to complete the entire Work within the Contract Time stipulated for completion. The Work Schedule shall be subject to the review of the Owner's Representative. If, at any time during the progress of Work, the Owner's Representative is of the opinion that the Contractor is not adhering to such Schedule, the Owner's Representative may request the Contractor to increase his/her force to comply with the Work Schedule. Failure of the Owner's Representative to request this shall not release the Contractor from his/her obligation to complete the Work of this Contract within the specified Contract Time.

C. Supervision and Direction

The Contractor shall supervise and direct the Work. The Contractor shall be solely responsible for the means,

RESPONSIBILITIES OF CONTRACTOR

methods, techniques, sequences, and procedures of construction. The Contractor shall employ and maintain on the Project a qualified construction supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor or superintendent shall have full authority to act on behalf of the Contractor. All communications given to the supervisor or superintendent shall be as binding as if given to the Contractor. The supervisor or superintendent shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

D. Safety

The Contractor shall be solely responsible for the safety of persons, property or the Work at or adjacent to the construction site. All decisions relating to safe construction operations, the use and proper application of equipment and materials, and the protection of the general public from construction operations shall be the responsibility of the Contractor. The Contractor shall identify a qualified supervisor or superintendent in writing who shall have the authority to act on behalf of the Contractor relative to Project safety issues. The supervisor or superintendent shall be present on the site at all times as required to maintain safe Project operations.

In the event that the designated construction or safety supervisor or superintendent is absent from the site, the Contractor shall designate a substitute supervisor or superintendent to act in responsible charge of the Work. Any changes in the designated construction supervisor or safety supervisor or superintendent shall be documented by written statement to the Owner and the Owner's Representative at the time of the change.

E. Repair of Damaged Items

The Contractor shall be entirely responsible for damages to water lines, electric conduits and lines, existing structures, drains, sidewalks, curbs, streets, roads, fences, trees, culverts, and other structures of any kind (not scheduled for removal) and shall be liable for damages to public and private property. Repair of same shall be Contractor's responsibility and at Contractor's own expense, except where such items are to be removed and replaced as shown on the Drawings, or as specified by the Contract Documents, and/or as otherwise directed by the Owner's Representative during the course of Work, in which case said replacement unit(s) will be paid for at the Contract unit price, as proposed.

RESPONSIBILITIES OF CONTRACTOR

F. Compliance

It shall be the responsibility of the Contractor to familiarize himself/herself and comply with all applicable laws, ordinances, rules, regulations and lawful orders of all public authorities bearing on the safety of persons or property or their protection from damage, injury or loss. Further, the Contractor shall comply with all requirements of these Contract Documents, including but not limited to referenced specifications and/or standards as well as the contents of the Occupational Safety and Health Act (OSHA), all codes and ordinances adopted by and in effect by Federal, State, County, Township, and **Municipal** Governmental Bodies, and any other governmental agencies at any level having authoritative jurisdiction over the area of improvement and the type of Work to be performed.

G. Existing Utilities

Existing utilities are shown on the Drawing according to information obtained from utility companies and surveys. Neither the Owner nor the Engineer will guarantee the accuracy or completeness of this information. The Contractor shall be responsible to make his/her own investigation to determine the existence, nature, and location of all utility lines and appurtenances within the limits of the improvement.

The Contractor shall take due care in all phases of construction to protect any utility which may be affected by the Work of this Contract. Any damages to existing utilities shall be repaired immediately by the Contractor and at the Contractor's own expense.

The Contractor shall be required to cooperate with all utility companies involved in connection with the removal, temporary relocation, reconstruction, or abandonment by these agencies of any and all services or facilities owned or operated by them within the limits of this improvement.

Before performing any Work which may potentially damage, disturb or leave unsupported or unprotected any utility lines or appurtenances encountered, the Contractor shall notify the respective utility or Owner thereof, who will make the necessary arrangements for relocating, adjusting, or otherwise maintaining or abandoning service lines that fall within the limits of the proposed construction. After such arrangements have been made, the Contractor shall proceed with the Work as directed by the utility involved and the Owner's Representative. When applicable, all utility lines and appurtenances which are to be abandoned shall be removed and disposed of by the Contractor, without damaging existing utilities, and with the approval of the respective utility agency involved.

RESPONSIBILITIES OF CONTRACTOR

No extra compensation will be allowed the Contractor for any expense incurred by complying with these requirements, or because of delays, inconvenience, or interruptions in his/her Work resulting from the failure of any utility company to remove, relocate, reconstruct or abandon their services. The responsibility for the prompt and timely removal, relocation, reconstruction or abandonment of the Contractor's own Work with that of the involved utility agencies and/or the Contractor's responsibility to coordinate with any involved utility agency so as to perform the Work of this Contract without delay because of necessary changes in the existing utilities, public or private, shall rest upon the Contractor.

H. Assignment of Contract

The Contractor shall be fully responsible for assignments of the Contract, when assignments are made by the Contractor. Furthermore, no part of the Work herein specified shall be assigned (by the Contractor) without the written consent of the Owner, and in no case shall such consent relieve the Contractor or his/her surety from the obligations herein entered into by the same or change the terms of the Contract Agreement.

I. Discrepancies

The Contractor shall not take advantage of any apparent discrepancies on or between the Drawings and/or Specifications. In the event the Contractor discovers any apparent discrepancy, the Contractor shall be responsible for immediately notifying the Owner's Representative in writing for an interpretation and/or decision; and such decision by the Owner's Representative shall be final. Should the Contractor, having knowledge of any such apparent discrepancy, proceed with the Work, such Work and/or related expenses shall be at the Contractor's own risk and cost.

PART 2- PRODUCTS

Not applicable to this Section.

PART 3- EXECUTION

Not applicable to this Section.

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices. END OF SECTION

MOBILIZATION AND DEMOBILIZATION

SECTION 01 10 20

PART 1- GENERAL

1.01 MOBILIZATION

Mobilization shall include, but is not necessarily limited to the following:

- A. Moving of construction materials, tools, supplies, equipment, accessories, and personnel to the job site.
- B. Setting up the Contractor's complete construction/ erection equipment, offices, and other construction facilities.

1.02 DEMOBILIZATION

Demobilization shall include the removal from the job site of all construction/erection equipment, offices, equipment and accessories, materials, supplies, appurtenances, construction debris, and the like upon completion of the Work.

PART 2- PRODUCTS

Not applicable to this Section.

PART 3- EXECUTION

Provide Owner and **Owner's Representative** 72 hours advance notice of any mobilization/demobilization activities.

PART 4- MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

Measurement will not be made for the Work specified in this Section.

4.02 PAYMENT

Payment for the Work specified in this Section shall be considered incidental and shall be included in the prices for various items to which they pertain in the Schedule of Prices.

END OF SECTION

SPECIAL PROJECT PROCEDURES

SECTION 01 10 30

PART 1- GENERAL

1.01 SCOPE

This Section establishes certain minimum requirements for special project procedures unique to the area which the Contractor shall be responsible for during the execution of the Work of this Contract. Specific details related to performance of Work shall be in accordance with the applicable requirements of other Sections of these Specifications, and/or as shown on the Drawings.

1.02 CONTRACTOR CONDUCT

The Contractor and all of the Contractor's personnel shall at all times behave and conduct themselves professionally in every way and manner when performing the Work of this Contract. Any conduct deemed unbecoming and/or non-professional shall be grounds for immediate discharge of the individuals behaving in said manner.

PART 2- PRODUCTS (Not applicable to this Section.)

PART 3- EXECUTION

3.00 CONTRACTOR'S SITE SUPERVISOR

The Contractor shall be responsible for providing a full-time site supervisor, who shall be fluent in English and skilled in all phases of the Work of this Contract. The Contractor's site supervisor shall act as a liaison between residents who may be affected in some way by this Project, and shall be on-site and available whenever Work of this Project is being performed. The Contractor's site supervisor shall be experienced in working with and reading the types of Drawings utilized for this Project as well as project scheduling and the actual Work to be performed.

3.01 GENERAL NOTIFICATION

The Contractor shall be responsible for notifying all utilities at JULIE, 1-800-892-0123, as well as Christopher B. Burke Engineering, Ltd. at 847-823-0500, and the **Village Administrator, Tim Halik, at (630) 323-8215** at least three (3) working days (72 hours) in advance of commencement of construction for locations of underground utility lines and arranging for layout and inspection of the proposed construction. (Notification to the Engineer and Owner shall be in writing.) The Contractor shall be responsible for all costs associated with the location service required to identify utility locations.

SPECIAL PROJECT PROCEDURES

3.02 NOTICE TO OWNER AND OWNER'S REPRESENTATIVE

Whenever the Contractor anticipates starting Work, whether at the beginning of the Contract or starting a phase, or after any cessation of Work, the Contractor shall at least three (3) working days (72 hours) prior to starting said Work, notify the **Owner** and the Owner's Representative of his/her intention to do so.

3.03 NOTIFICATION OF POLICE AND FIRE DEPARTMENTS

The Contractor shall notify the local Police and local Fire Departments as to how they will be impacted by construction activity. In general and as a minimum, two-way traffic shall be maintained at all times; streets and roads will not be allowed to be closed except for short duration(s) of time to allow construction maneuvering. Such "short duration" road closures will only be allowed when prior written approval is obtained from the Owner and involved Police and Fire Departments. In case of any street or road closure for any length of time, the Contractor shall maintain plans and provisions for emergency vehicle access of involved Police and Fire Departments. Such "short duration" road closures shall be open to traffic as soon as possible. No driveways or streets are to be left closed overnight.

3.04 INITIAL CLEAN-UP

No objects foreign to the excavated material shall be left on the site. All excavated asphalt shall be removed from the site. All debris from tree trimming or tree removal shall be removed from the site to a dump off the job site to be found by the Contractor at his/her own expense.

All garbage and debris shall be removed from the site daily in accordance with the applicable requirements of Section 01 50 95, Maintenance of Work Site and Daily Clean-Up. Under no circumstances shall any type of garbage or debris be placed in any excavation or the trench and buried. This includes but is not limited to any devices used to secure the pipe and appurtenances while being delivered to the site, food wrappers and bags, cans or bottles, asphalt, wood, tree trimmings, bituminous concrete and concrete.

All pavement areas shall be kept clear and clean on a daily basis during the course of the Work. Street sweeping shall be as required and as directed by the Owner or the Owner's Representative.

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs for such Work

SPECIAL PROJECT PROCEDURES

shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

CODES AND STANDARD SPECIFICATIONS

SECTION 01 10 60

PART 1- GENERAL

1.01 SCOPE

The standards under which the Work is to be performed or tested are specified throughout the Contract Documents. Where such standards are specified, it shall be understood that the latest revision or edition at time of submission of Bids shall apply unless otherwise specified.

1.02 QUALITY ASSURANCE

A. General

All Work shall meet applicable requirements of State, Federal and Local Codes and Regulations, specifically National Electrical Code and Regulations of Department of Labor-Occupational Safety and Health Administration (OSHA), and as specified or adopted herein, and/or as directed by the Owner.

B. Adopted Codes and Standards

The below listed Codes and Standards are adopted throughout these Specifications and are included as part of these Contract Documents and shall apply to all Work performed and materials provided under this Contract unless otherwise specified in subsequent Sections of these Specifications. Where contradictions occur the more stringent shall apply.

1. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, latest revision, as adopted by the Illinois Department of Transportation (hereafter referred to as the Standard Specifications).
2. NATIONAL FIRE PROTECTION AGENCY (NFPA), latest edition.
3. NATIONAL ELECTRIC CODE (NEC), latest edition.

PART 2- PRODUCTS

Not applicable to this Section.

PART 3- EXECUTION

Not applicable to this Section.

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work

CODES AND STANDARD SPECIFICATIONS

shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

PROJECT MEETINGS

SECTION 01 31 00

PART 1- GENERAL

1.01 PRECONSTRUCTION CONFERENCE

A. General

Within 10 days after issuance of the Notice to Proceed, a preconstruction conference will be held at the location, date, and time to be designated by the Owner. Contractor shall be readily available to attend this meeting and shall make the necessary arrangements to have those individuals (including subcontractors) experienced and knowledgeable, and who will be in the direct charge of the Work, to also attend the meeting.

B. Agenda

The matters to be discussed will include:

1. Construction schedule and progress reports to be submitted by the Contractor as described in Sections 01 31 10 and 01 31 20. Set final completion date for the Work of this Contract in accordance with the Notice to Proceed.
2. Details of construction sequence, including the bar chart submitted with the Bid, lead times of equipment procurement, as well as the date by which the Contractor must place his/her material or equipment order to complete the Work within the construction schedule time limitations set in Section 00 41 00 Paragraph 5.
3. Communication and general correspondence procedures between the involved parties. The Owner will designate his/her representative and/or Engineer at the time of this meeting.
4. The names and titles of all persons authorized by the Contractor to represent and execute documents for the Contractor.
5. The names, addresses, and telephone numbers of all those authorized by the Contractor to act for him/her in emergencies. Contractor to provide phone/fax/cellular number of those individuals who will be available and responsible for the Work on a 24 hour per day basis, 7 days per week. (Contractor to submit certification as required by Section 00 60 40.)
6. Access and property limits of the Owner.

PROJECT MEETINGS

7. Forms and procedures for Contractor's Submittals as described in Section 01 31 00.
8. Construction equipment and methods proposed by the Contractor. The Contractor shall submit a list of equipment to be used in the Work.
9. Administrative and general matters as needed, including working hours per paragraph 00103 of Section 00 21 13.
10. Site and construction/erection equipment requirements and layout.
11. Subcontractors.
12. Payment estimates and submittals for payment.
13. Progress meetings during the course of the Work.

1.02 WEEKLY CONSTRUCTION MEETINGS

Construction meetings shall be held at once every week or more frequently as needed or called by the Contractor or the Owner. All matters bearing on the progress and performance of the Work since the preceding progress meetings shall be discussed and resolved, including, without limitation, any previously unresolved matters, deficiencies in the Work or the methods being employed for the Work, and problems, difficulties, or delays which may be encountered, in order that the Work may be constructed on schedule and within cost.

PART 2- PRODUCT

Minutes of construction meetings shall be prepared by the Contractor subject to the review of the Owner or Owners Representative having participated in the meeting.

PART 3- EXECUTION

Minutes of construction meetings shall be submitted to the Owner or Owners Representative no later than 72 hours following the meeting.

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All cost of such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

**PROJECT SCHEDULE, COORDINATION OF CONTRACTS
AND LIQUIDATED DAMAGES**

SECTION 01 31 10

PART 1- GENERAL

1.01 CONSTRUCTION SCHEDULE

Within 10 days after issuance of the Notice to Proceed, the Contractor shall submit for review by the Owner a construction schedule. The construction schedule shall clearly identify the construction sequencing. The schedule shall be prepared by personnel experienced in this method of construction scheduling. Every week thereafter during the course of the Work, the Contractor shall revise the construction schedule and shall resubmit it to the Owner for review. Revised schedules shall be submitted for discussion at the weekly project meetings.

The construction schedule shall clearly show each unit of Work to be performed under this Contract, and all items in the overall sequencing of the Work, including, but not limited to, excavation, fill and backfill, form work erection, concrete placements, form removal, embedded parts installation, iron or steel work, equipment installations, and delivery of fabricated items, testing, final check-outs, start-up and placing into operation. Time frame(s) for restoration Work shall also be clearly identified on the schedule.

The schedule shall be prepared and maintained on a reproducible medium sufficient in size to show required data clearly for the entire duration of the Contract, and sufficient to permit reproduction for required distribution.

The construction schedule shall be arranged with notations to show how the sequence of Work is affected by Work by other contractors, work by Owner, site restrictions, purchase of materials, seasonal weather variations, and any other items deemed appropriate.

1.02 COORDINATION OF CONTRACTS

The Contractor shall be responsible for the coordination of the Contract.

The Contractor shall cooperate with other contractors and shall not hinder, delay or prevent other contractors from performing work.

**PROJECT SCHEDULE, COORDINATION OF CONTRACTS
AND LIQUIDATED DAMAGES**

1.03 REQUIRED COMPLETION DATES

A. Contract Completion Time

All Work of this Contract shall be completed **90 consecutive calendar days** from the date of a written notice from the Owner to proceed. The herein specified completion time is intended to include roadway and landscaping restoration and depending upon the time of year this Contract is awarded, the Contractor shall commit to either comply with the specified completion date including roadway and landscape restoration or shall provide an alternative schedule acceptable to the Owner indicating when the roadway and landscaping restoration will be completed. For additional details refer to Section 00 50 00, Article IV.

B. Substantial Completion

The Work of this Contract shall reach substantial completion by **May 22, 2015**. Substantial completion of the Work is when the facility is ready for use; but not necessarily including, final check-out, start-up testing, and addressing punchlist items.

C. Final Completion

Final completion shall be defined as the date when equipment start-up has successfully been completed and the equipment has been placed into satisfactory operation. Final completion shall be no later than **June 1, 2015** and final invoicing/payment/waivers of lien shall be issued by **June 15, 2015**.

1.04 LIQUIDATED DAMAGES

In case of failure on the part of the Contractor to meet the Contract Completion Date, or any extensions thereof, as proposed under the Bid Form (Section 00 41 00) for Substantial Completion of the Work, the Contractor shall pay to the Owner as fixed, agreed, and liquidated damages the sum of **\$500.00 for each calendar day** that completion is delayed. However, the total amount of liquidated damages to be assessed by the Owner in case of such delays, shall not exceed 10 percent of the original contract price.

In the event that it becomes necessary to terminate the Contractor's right to proceed with the Work under the Contract, such termination shall not relieve the Contractor of any responsibility for liquidated damages as set forth herein. If the Owner so terminates the Contractor's right to proceed, any resulting damage will include, subject to the limitation stated above, such liquidated damages as provided for herein until such reasonable time as may be

**PROJECT SCHEDULE, COORDINATION OF CONTRACTS
AND LIQUIDATED DAMAGES**

required for completion of the Work by the Owner.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not Applicable to this Section.

PART 4 - MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

PROGRESS REPORTS

SECTION 01 31 20

PART 1- GENERAL

A weekly progress report shall be prepared by the Contractor in a form approved by the Owner and shall be submitted by the Contractor to keep the Owner properly informed with regard to the Work. Weekly progress reporting shall commence immediately after Notice to Proceed.

PART 2- PRODUCTS

The weekly progress report shall indicate equipment procurement, the amount of the Work completed, materials actually used, materials in storage, on site personnel and the cumulative results of all operations completed or in progress and shall be summarized in terms of percentage of completion. The progress report shall include a brief description of the Work to be completed for the next week. Any delays experienced during the Work shall be stated in the progress report as well as the solution for regaining lost time.

PART 3- EXECUTION

Progress reports shall be submitted at the close of each week's work not later than midmorning of the corresponding Friday.

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

EQUIPMENT SUBMITTALS

SECTION 01 33 00

PART 1- GENERAL

1.01 SCOPE

- A. This Section establishes minimum requirements and procedures for Equipment Submittals made by the Contractor for materials and equipment provided for under the Work of this Contract. Specific details for additional drawings, data and information to be submitted shall be in accordance with the applicable requirements of other Sections of these Specifications.
- B. Acceptable Manufacturers and Equipment Suppliers for various items of equipment are specified in respective Sections of these Contract Documents. For convenience of designation in the Contract Documents, certain equipment, articles, materials, and processes are designated by manufacturer trade name or catalog name and number. Such designation shall be deemed to be followed by the words "or equal" whether such words are shown or not. The Contractor may offer material or processes which are equal to that so indicated or specified at the time of Bid. The burden of proof as to comparative quality and suitability of alternatives shall be upon the Contractor. Specified items are preferred. After acceptance of Bid, no substitutions will be allowed, except as stated in the Bid. (Exception: Where Specifications indicate "No Substitutions Allowed" the Contractor shall provide the designated manufacturers equipment without exception.)

1.02 SUBMITTAL SCHEDULE

The Contractor shall, within 10 days after receiving the Notice to Proceed, prepare and submit for review a construction schedule together with a detailed list of all the submittals which he/she proposes to make to meet the requirements stated herein and those cited in other Sections of the Contract Documents including the dates on which he/she proposes to make such submittals. The list shall include Working Drawings, Field Detail Drawings, Project Record Documents, Quality Control Procedures, and all other items for which a submittal is required. The list shall include identifying references for each item to relate it to the specific item of the Contract Documents.

With each revision or certification of the Construction Schedule, the Contractor shall either revise this schedule of submittals and submit it for review or certify that the previously furnished schedule is still in effect.

After the Submittal Schedule is reviewed by the Owner's Representative, it shall become the basis for the submittal

EQUIPMENT SUBMITTALS

of all items by the Contractor.

1.03 SUBMITTAL REQUIREMENTS

A. General

The Contractor shall furnish for review his/her Submittals as outlined herein and in the Specifications. Submittals shall confirm compliance with the requirements of the Contract Documents. Submittals of equipment drawings shall be made prior to the fabrication of the equipment. The sequence of submission shall be such that information is available for review of each Submittal when it is received. All Submittals furnished formally shall bear an approval stamp or a certification. The stamp or certification shall be signed by an authorized representative of the Contractor. The Contractor's stamp or certification on any Submittals shall constitute a representation to the Owner that the Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data, or that he/she assumes full responsibility for doing so, and that he/she has reviewed and coordinated each Submittal with the requirements of the Contract Documents. Before submitting any drawings for review, the Contractor shall obtain approval of the list of drawings he/she proposes to submit, showing sequence of submittal and submittal dates. All drawings shall be submitted in accordance with the Submittal Schedule as previously specified herein. Submittals shall be as complete as possible. Partial submittals will not be accepted for review.

B. Addressed To

All submittals shall be addressed to the Owner or as otherwise directed by the Owner.

C. Outline Drawings

The Contractor shall submit outline drawings of the equipment to be furnished together with estimated weights, operating forces, external forces, anchoring details, and sufficient overall dimensions, to facilitate preparation of final designs of the structures into which the equipment is to be incorporated.

D. Wiring Diagrams

The Contractor shall submit complete schematic and full-line wiring diagrams for all equipment furnished by him/her. The Contractor shall furnish drawings of switch developments for all instrument and control switches and internal connection diagrams for all instruments, relays, regulators, and other devices. One print of each wiring

EQUIPMENT SUBMITTALS

diagram will be returned on which will be marked the wire notations and cable numbers for outgoing circuits where this information is not otherwise available to the Contractor. The Contractor shall add this information to his/her drawings. Adequate space shall be allowed on the wiring diagrams to accomplish this.

E. Detail Drawings and Erection Drawing

Before proceeding with fabrication or manufacture of the material and equipment designed and furnished by him/her, the Contractor shall submit the designs, design computations when requested, apparatus ratings, detailed specifications, general assembly drawings, sufficient subassembly drawings, details, and control and wiring diagrams to demonstrate fully that all parts will conform to the provisions and intent of the Contract Documents and to the requirements of their installations, operations, and maintenance. These drawings shall substantially conform to the Bid and Contract Drawings and shall show all necessary dimensions; all field joints and subassemblies in which the Contractor proposes to ship the equipment; locations and sizes of auxiliary connections for oil, grease, water and air; and the terminal boxes and wire sizes for electrical circuits. Before proceeding with fabrication or purchase, the Contractor shall submit shop drawings and/or catalog cuts as appropriate of items designed but not detailed on the Contract Drawings including, but not limited to structural steel and metal frames, covers, and gratings.

F. Field Detail Drawings

Layout drawings for any and all embedded components of the equipment such as but not limited to, piping, conduit, anchor bolts/plates, thimbles, etc. shall be submitted. These drawings shall be based on the Contract Drawings and shall contain sufficient detail for construction in the field.

G. Review of Drawings

1. Three print copies on durable paper with dark lines on a white background and one original durable paper type reproducible shall be furnished of each drawing submitted. All drawings submitted shall, insofar as practicable, be of one standard size, measuring approximately 22 x 34 inches or 11 x 17 inches. The Contractor's drawings shall have a blank area of 4 x 4 inches adjacent to the drawing title block for the review stamp of the Owner's Representative. The Contractor shall verify by inspection of sample reproductions that good legible reproductions can be obtained from the reproducible before submittal.

EQUIPMENT SUBMITTALS

2. Within three weeks of receipt of shop drawings or manufacturer's data, the Owner's Representative will return one copy of each drawing and/or data sheet marked to indicate the result of the Owner's Representative's review, as follows:
 - a. "REVIEWED" - Revision of drawing or data will not be required.
 - b. "REVIEWED WITH CORRECTIONS" - Contractor shall revise the drawings or data and shall submit four print copies and one reproducible copy for Owner's Representative's records.
 - c. "REVISE AND RESUBMIT" - Contractor shall revise the drawing or data and shall resubmit the revised drawing or data to the Owner's Representative for review.
 - d. "REJECTED" - Drawings are non-conforming and do not meet intent of Specifications.
3. Copies marked "REVIEWED" or "REVIEWED WITH CORRECTIONS" authorize the Contractor to proceed with construction or fabrication covered by those drawings or data sheets with corrections, if any, incorporated.
4. Review will not relieve the Contractor of responsibility for conformity to the Contract Documents and correct detail and fit of parts when installed.
5. If minor revisions are made after a drawing has been returned to the Contractor marked "REVIEWED", the Contractor shall furnish without delay one print copy and one reproducible copy subsequent to each revision. No major revision affecting the design shall be made after a drawing has been marked "REVIEWED" without resubmitting the drawing.
6. When prints of drawings have been marked "REVIEWED WITH CORRECTIONS" or "REVISE AND RESUBMIT" the Contractor shall make the necessary corrections and submit three print copies and one paper-type reproducible. Every revision shall be shown by number, date, and subject in a revision block, and in addition, each revised drawing shall have its latest revision clearly indicated. Submitted drawings which do not illustrate these indications will be considered non-conforming.
7. The applicable parts of the requirements of the above paragraphs with reference to the drawings shall apply equally to design data, catalog cuts, illustrations,

EQUIPMENT SUBMITTALS

printed specifications, draft reports or any other submittals furnished for review.

8. The Contractor shall make any changes in the designs which are necessary to make the equipment conform to the provisions and intent of the Contract Documents, without additional cost to the Owner.
9. Should an error be found in a Contractor's drawing during the erection of structures or installation of equipment, the correction, including any field changes found necessary, shall be noted on the drawing, and it shall be resubmitted for review, and recorded as outlined above.
10. Any drawing review services performed by the Engineer beyond that of the second submittal (for a specific item of equipment or material to be furnished) shall be at the Contractor's own expense.

H. Record Drawings

Prior to completion of the Work under the Contract Documents, the Contractor shall furnish one complete set of full-size permanent reproducible copies of approved quality and type and 2 full size sets of prints of all Contractor's drawings and equipment as finally built, including any field changes.

I. Operating and Maintenance Instructions

1. Three sets of detailed operating and maintenance instruction manuals which shall include reduced-size copies of applicable drawings, applicable parts lists and catalogs covering all equipment furnished and which may be needed or useful in operation, maintenance, repairs, dismantling or assembling, and for repair and identification of parts for ordering replacements, shall be furnished as specified.
2. Furnish operation and maintenance manuals for the various types of equipment and systems, as required by the Contract Documents. Unless otherwise indicated, a separate manual shall be furnished for each piece of equipment and/or system. The manual shall include complete information necessary to operate, maintain and repair the equipment and/or system and shall include the following specific requirements:
 - a. Table of contents and index.
 - b. Brief description of the equipment/system and principal components.

EQUIPMENT SUBMITTALS

- c. Starting and stopping procedures both normal and emergency.
 - d. Installation, maintenance and overhaul instructions which shall include detailed assembly drawings with parts list and numbers, and recommended spare parts list with recommended quantity, manufacturer's price, suppliers address and telephone number.
 - e. Recommended schedule for servicing including technical data sheets that indicate weights and types of oil, grease or other lubricants recommended for use and their application procedures.
 - f. One copy of each component wiring diagram and the system wiring diagram showing wire size and identification.
 - g. One approved copy of each submittal with any changes made during construction properly noted including test certificates, characteristic curves, factory and field test results.
 - h. For electrical systems include dimensioned installation drawings, single line diagrams, control diagrams, wiring and connection diagrams, list of material for contactors, relays and controls, outline drawings showing relays and controls, outline drawings showing relays, meters, controls and indication equipment mounted on the equipment or inside cubicles, control and protective schematics and recommended relay settings.
3. Submittal Requirements: Three preliminary copies of manuals shall be submitted no later than the date of shipment of equipment, and installation shall not begin until they are accepted by the Owner's Representative. Three approved copies of complete manuals shall be delivered to the Owner's Representative prior to Owner's Representative inspections and tests.

J. Language

All drawings, design data, reports, instructions, catalogs, illustrations, and printed specifications shall be submitted in English.

EQUIPMENT SUBMITTALS

K. System of Units of Measurement

All units of measurement used shall be in the U.S. Customary System.

PART 2- PRODUCTS

(Refer to Paragraph 1.03, Submittal Requirements, of this Section.)

PART 3- EXECUTION

(Refer to Paragraph 1.02, Submittal Schedule, of this Section.)

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices. Note: Supplementary Engineering Services for shop drawing review shall be paid for by the Contractor in accordance with paragraph 1.03, G.10 of this Section.

END OF SECTION

TRAFFIC CONTROL AND PROTECTION

SECTION 01 50 00

PART 1- GENERAL

1.01 SCOPE

A. Description

This Section covers traffic control and protection which the Contractor shall be responsible for providing and/or coordinating for the duration of the Work.

B. Related Work

All Sections of the Specifications as they may apply.

1.02 QUALITY ASSURANCE

All Work shall conform to the applicable provisions of the codes, Standards and Specifications as specified herein.

1.03 REFERENCES

The publications and standards listed below form a part of this Specification to the extent referenced, or as applicable. Versions listed shall be superseded by updated versions as they become available.

A. IDOT Standard Specifications for Road and Bridge Construction

1. Article 107.09
2. Division 700

B. IDOT Highway Standards/Details

1. Traffic Control and Protection, Standard 701301
2. Traffic Control and Protection, Standard 701427

C. Quality Standard for Work Zone Traffic Control Devices

D. Recurring Special Provisions and Special Provisions

E. Illinois Manual on Uniform Traffic Control Devices for Streets and Highways

F. American National Standards Institute (ANSI)

1. ANSI/ISEA 107-2010, American National Standard for High Visibility Safety Apparel and Headwear Devices

G. Municipal Code and Standards

TRAFFIC CONTROL AND PROTECTION

PART 2- PRODUCT

Not applicable to this Section.

PART 3- EXECUTION

3.01 MAINTENANCE AND CONTROL OF TRAFFIC

- A. The Contractor shall be responsible for maintaining a normal through traffic flow where work may interfere with existing traffic patterns. If applicable, he/she shall submit his/her maintenance of traffic plan for review to the traffic department of the jurisdictions involved. Maintenance of traffic shall be in accordance with jurisdictional requirements and requirements set forth in permits acquired for this Contract. Safety measures shall be in accordance with Illinois Department of Transportation, State Highway Administration Standard Specifications and applicable jurisdictional requirements including local Police and Fire Departments.

As a minimum, the Contractor shall obtain, erect, maintain and remove all signs, lit barricades, flashers, flagmen and other traffic and pedestrian control devices as may be necessary for the purpose of regulating, warning, protecting and guiding vehicular and pedestrian traffic and protection to obviate the danger of injury to the aforesaid vehicular and pedestrian traffic as well as the Contractor's and/or subcontractor's personnel in the vicinity of the Work area. Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction.

At the preconstruction meeting, the Contractor shall furnish the name of the individual in his/her direct employ who shall be responsible for the installation and maintenance of the traffic and pedestrian control for this Project. If the actual installation and maintenance are to be accomplished by a subcontractor, consent shall be requested of the Owner's Representative at the time of the preconstruction meeting in accordance with IDOT Standard Specification for Road and Bridge Construction. This shall not relieve the Contractor of the foregoing requirement for a responsible individual in his/her direct employ.

The Contractor shall furnish, install, maintain, relocate and subsequently remove all signs, signals, temporary pavement marking, traffic cones, barricades, warning lights, flagmen, and other devices as required and used for the purpose of controlling traffic. **One/Two way movements on streets and access to properties/facilities shall be maintained at all times.**

TRAFFIC CONTROL AND PROTECTION

The Contractor shall be responsible for insuring that all barricades, warning signs, lights and other devices installed by him/her are in place and operating twenty-four (24) hours each day, during the entire time such devices are required.

In the event of severe weather conditions, the Contractor shall be required to furnish any additional personnel required to properly maintain all traffic control devices.

The Contractor shall be responsible for coordination of his/her operations with the appropriate jurisdictional agencies. In the absence of jurisdictional requirements, roads shall be considered secondary unless otherwise indicated.

1. General. Provide special workmen to whom no other duties shall be assigned but to direct traffic at all times on roadways that are temporary blocked to any extent by construction equipment or operations. Workmen shall wear fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/green vests meeting requirements of ANSI/ISEA 107-2010 for conspicuity Class 2 garments and flagger traffic control paddles. For night time flagging, flaggers shall be illuminated by an overhead light source in accordance with Article 701.13 of the Standard Specifications.
2. Primary Roads Where Indicated. Do not utilize roadway space for storage of excavated material and other materials. Close excavations at the end of each work day by backfilling or by means of steel plates marked in advance with warning signs or other accepted materials, and leave Work area clean and without obstacles during off-work hours.
3. Secondary Roads. Maintain one-way traffic during working hours. Clean up area of the Work Site at the end of each workday so as to provide maximum use of the roadway during off-work hours.

The Contractor shall comply with the applicable requirements of the Village as related to Police and Fire Department notifications and/or control of traffic.

3.02

SAFETY PRECAUTIONS

The Contractor shall comply with applicable provisions of the latest revision of Occupational Safety and Health Act (OSHA). The Contractor shall relegate and coordinate regulations of this Act related to construction work with all sub-contractors. Costs related to compliance with OSHA are to be included in the prices for the various Items to

TRAFFIC CONTROL AND PROTECTION

which they may pertain.

PART 4- MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

Measurement will be made on a lump sum basis.

4.02 PAYMENT

- A. Payment for the Work specified in this Section will be made at the lump sum price for:

01 50 00/01, Traffic Control and Protection, Standard
701301

01 50 00/02, Traffic Control and Protection, Standard
701427

- B. This price shall be full compensation for furnishing all materials; and for all preparation; and for all labor, equipment, tools, and incidentals necessary for the Work as required by the Contract Specifications and Drawings.

- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain.

END OF SECTION

MAINTENANCE OF WORK SITE & DAILY CLEAN-UP

SECTION 01 50 95

PART 1- GENERAL

This Section covers general maintenance of the Work Site and daily clean-up which the Contractor shall be responsible for the duration of the Project, and includes, but is not limited to storage, stockpiling and/or protection of materials and Work.

PART 2- PRODUCTS

(Not applicable to this Section.)

PART 3- EXECUTION

3.00 GENERAL

Contractor shall comply with all applicable requirements specified in Section 01 10 30.

3.01 MAINTENANCE OF WORK SITE

The Contractor shall keep the site of the Work and adjacent premises as free from material, debris and rubbish as is practicable, and shall remove same from any portion of the site, if, in the opinion of the Owner's Representative, such material, debris, or rubbish constitutes a nuisance or is objectionable in any way to the public. The Contractor shall remove all machinery, materials, barricades, staging, false-work, debris and rubbish connected with, or caused by said Work, immediately upon the completion of the same and shall clean all structures and Work constructed under this Contract to the satisfaction of the Owner's Representative and leave the premises in an approved condition insofar as affected by the Work under this Contract.

3.02 DAILY CLEAN-UP

Each day before the Contractor shuts down Work operations for the day, the Contractor shall clean all pavement areas in/around/adjacent to the Work site of all dirt, mud, debris, or other items deposited thereupon. Special care shall be taken to insure that drainage structures are clean and usable every evening in the case of inclement weather.

If the site and paved areas cannot be cleaned to the satisfaction of the Owner's Representative, mechanical sweeping shall be provided by the Contractor at no additional cost to the Owner.

MAINTENANCE OF WORK SITE & DAILY CLEAN-UP

3.03 RESPONSIBILITY FOR PROTECTION OF MATERIALS AND WORK

The Contractor shall be responsible for the safe storage of all equipment and materials furnished by, or to, or accepted by the Contractor, and intended for the Work until such equipment or material has been incorporated into the completed Project. Such equipment and materials as well as their related appurtenances and accessories shall, unless otherwise directed by the Owner, be unloaded at the "staging site" point of delivery, hauled to, and distributed as necessary to the specific Work site of the Project, by the Contractor. They shall at all times be handled with care to avoid damage.

All concrete construction shall be protected by the Contractor to prevent accidental or pre-meditated damage. Adequate supervision of freshly poured areas shall be provided until the material has adequately cured. All cost associated with the supervision, the repair, or the replacement of damaged areas shall be considered incidental to the Contract.

3.04 STOCKPILING MATERIAL AND CARE OF STRUCTURES

All excavated and other materials shall be so stockpiled as not to endanger the Work and so that free access may be had at any time to all parts of the Work, and shall be kept neatly piled so as not to inconvenience public travel, private property owners, or adjoining tenants.

All excess excavated material and other materials shall be immediately removed and disposed of off the job site by the Contractor in accordance with Article 202.03 of the Standard Specifications.

At no time shall excavated material or other materials be stored on private property and surrounding paved areas unless approved by the authority having jurisdiction, the Owner and the Owner's Representative.

Any material left above the trench to allow for settlement will be neatly mounded. No debris foreign to the trenched material may remain.

PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs for such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

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PART 1- GENERAL

1.01 REFERENCES

The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by their basic designation only. Versions listed shall be superseded by updated versions as they become available.

A. American National Standards Institute (ANSI)

- C78.377-2011 (or latest), American National Standard for the Chromaticity of Solid State Lighting Products
- C82.77-2002 (or latest), American National Standard for Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment
- C136.2-2014 (or latest), American National Standard for Roadway and Area Lighting Equipment - Dielectric Withstand and Electrical Immunity Requirements
- C136.10-2010 (or latest), American National Standard for Roadway and Area Lighting Equipment - Locking-Type Photocontrol Devices and Mating Receptacles- Physical and Electrical Interchangeability and Testing
- C136.15-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment - Luminaire Field Identification
- C136.22-2004 R2009 (or latest), American National Standard for Roadway and Area Lighting Equipment - Internal Labeling of Luminaires
- C136.31-2010 (or latest), American National Standard for Roadway Lighting Equipment - Luminaire Vibration
- C136.37-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment - Solid State Light Sources Used in Roadway and Area Lighting
- C136.41-2013 (or latest), American National Standard for Roadway and Area Lighting Equipment-Dimming Control Between an External Locking Type Photocontrol and Ballast or Driver

B. American Society for Testing and Materials International (ASTM)

- B117-11 (or latest), Standard Practice for Operating Salt Spray (Fog) Apparatus
- D523-08 (or latest), Standard Test Method for Specular Gloss

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- D1654-08 (or latest), Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
 - G154-06 (or latest), Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials
- C. ENERGY STAR®
- ENERGY STAR TM-21 Calculator, rev. 020712 (or latest, www.energystar.gov/TM-21Calculator)
- D. European Union (EU)
- RoHS II Directive 2011/65/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)
- E. Federal Communication Commission (FCC)
- 47 CFR Part 15, Telecommunication - Radio Frequency Devices
- F. Federal Trade Commission (FTC)
- Complying with the Made in USA Standard, December 1998 (<http://business.ftc.gov/advertising-and-marketing/made-usa>)
 - Green Guides, 16 CFR Part 260, Guides for the Use of Environmental Marketing Claims
- G. Illuminating Engineering Society of North America (IESNA or IES)
- LM-50-13 (or latest), IES Approved Method for Photometric Measurement of Roadway and Street Lighting Installations
 - LM-61-06 (or latest), IESNA Approved Guide for Identifying Operating Factors Influencing Measured Vs. Predicted Performance for Installed Outdoor High Intensity Discharge (HID) Luminaires
 - LM-63-02 (R2008 or latest), ANSI/IESNA Standard File Format for the Electronic Transfer of Photometric Data and Related Information
 - LM-79-08 (or latest), IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
 - LM-80-08 (or latest), IESNA Approved Method for Measuring Lumen Maintenance of LED Light Sources
 - RP-8-00 (or latest), ANSI / IESNA American National Standard Practice for Roadway Lighting

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- RP-16-10 (or latest), ANSI/IES Nomenclature and Definitions for Illuminating Engineering
 - TM-15-11 (or latest), Luminaire Classification System for Outdoor Luminaires
 - TM-21-11 (or latest), Projecting Long Term Lumen Maintenance of LED Light Sources
- H. International Electrotechnical Commission (IEC)
- 60929 Annex E, Control Interface for Controllable Ballasts (0-10V)
 - 62386, Digital Addressable Lighting Interface (DALI)
- I. LED Lighting Facts
- Submission Requirements
(<http://www.lightingfacts.com/About/Content/Manufacturers/SubmissionRequirements>)
- J. Municipal Solid-State Street Lighting Consortium (MSSLC)
- Model Specification for Networked Outdoor Lighting Control Systems, V2.0 (or latest)
- K. National Electrical Manufacturers Association (NEMA)
- LSD 63-2012 Measurement Methods and Performance Variation for Verification Testing of General Purpose Lamps and Systems
- L. Underwriters Laboratories (UL)
- 1598 Third Edition (or latest), Luminaires

1.02 RELATED DOCUMENTS

- A. Contract Drawings and conditions of Contract (including General Requirements and Covenants per the Standard Specifications for Road and Bridge Construction, Supplemental Conditions, Addendum to the General Requirements, Technical Specifications, Division 01 Specifications Sections and all other Contract Documents) apply to the work of this Section.

1.03 DEFINITIONS

- A. Lighting terminology used herein is defined in IES RP-16. See referenced documents for additional definitions.
1. Exception: The term "driver" is used herein to broadly cover both drivers and power supplies, where applicable.

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2. Clarification: The term "LED light source(s)" is used herein per IES LM-80 to broadly cover LED package(s), module(s), and array(s).

1.04 QUALITY ASSURANCE

- A. **Applicable Manufacturers: GE Evolve Series Model # ERS 20 F3 E1 S 40 7PIN D GRAY D L R or Cree XSP 2 Series Model # BXSP A 2 3 H A U SR. Note: All fixtures shall include control interface device of a 7-pin ANSI C136.41 compatibility and have a LED driver dimmable 0-10V (IEC 60929).**
- A. Before approval and purchase, Owner may request luminaire sample(s) identical to product configuration(s) submitted for inspection. Owner may request IES LM-79 testing of luminaire sample(s) to verify performance is within manufacturer-reported tolerances.
- B. After installation, Owner may perform IES LM-50 field measurements to verify performance requirements outlined in the Luminaire Performance Table, giving consideration to measurement uncertainties outlined in IES LM-61.

1.05 LIGHTING SYSTEM PERFORMANCE

A. Energy Conservation

1. Connected Load

- a. Luminaires maximum nominal luminaire input power, as specified in the Luminaire Performance Table shall correspond to luminaire wattage plus any driver losses.

2. Lighting Controls

- a. Separate lighting control system will not be required for this project.
- b. See Section 2.01-C for driver control interface and photocontrol receptacle requirements.
- c. Luminaires shall be provided with a 0-10V dimmable photocell. The dimmable photocell shall be compatible with the proposed ANSI C136.41 7-pin twist lock receptacle and shall be set to a 0% dim level.

1.06 REQUIRED SUBMITTALS

A. General submittal content shall include

1. Completed Product Submittal Form
2. Luminaire Performance Table

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3. Luminaire cut sheets
 4. Cut sheets for LED light sources
 5. Cut sheets for LED driver(s)
 - a. If dimmable LED driver is specified, provide diagrams illustrating light output and input power as a function of control signal.
 6. Cut sheets for surge protection device, if applicable
 7. Instructions for installation and maintenance
 8. Summary of luminaire recycled content and recyclability per the FTC Green Guides, expressed by percentage of luminaire weight
- B. IES LM-79 luminaire photometric report(s) shall be produced by the test laboratory that satisfies LED Lighting Facts accreditation requirements and includes the following information:
1. Name of test laboratory
 - a. The test laboratory must hold National Voluntary Laboratory Accreditation Program (NVLAP) accreditation for the IES LM-79 test procedure or must be qualified, verified, and recognized through the U.S. Department of Energy's CALiPER program. For more information, see <http://ts.nist.gov/standards/scopes/eelit.htm> or www.ssl.energy.gov/test_labs.html.
 2. Report number
 3. Date
 4. Complete luminaire catalog number
 - a. Provide explanation if catalog number in test report(s) does not match catalog number of luminaire submitted
 - 1) Clarify whether discrepancy does not affect performance, e.g., in the case of differing luminaire housing color.
 - 2) If nominal performance of submitted and tested products differ, submit additional LM-79 report(s) and derivation as indicated in Section 26 56 20, Product Family Testing LM-79 and ISTMT.
 5. Description of luminaire, LED light source(s), and LED driver(s)
 6. Goniophotometry
 - a. IES TM-15 Backlight-Uplight-Glare (BUG) ratings shall be for initial (worst-case) values, i.e., Light Loss Factor (LLF) = 1.0.

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- b. If luminaires are tilted upward for calculations in Section 1.06(B6C), BUG ratings shall correspond to the same angle(s) of tilt.
- C. Lumen maintenance calculations and supporting test data shall be in accordance with LED Lighting Facts guidance. Exception: calculations shall be based on the cumulative hours of operation specified in Luminaire Performance Table. Submit completed ENERGY STAR TM-21 Calculator as an electronic Excel file.
- D. Computer-generated point-by-point photometric analysis of maintained light levels:
 - 1. Calculation/measurement points shall be per IES RP-8. Separated vehicular lanes, bikeways, and walkways shall be evaluated separately. An AGI 32 photometric calculation file will be provided for use in performing proposed photometric calculations. The revised file shall be submitted along with required submittals for review.
 - 2. Calculations shall be for Light Loss Factor (LLF) < 1.0, where $LLF = LLD \times LDD \times LATF = 0.60$.
 - a. Lamp Lumen Depreciation (LLD) shall be 0.7 (L_{70}) for all luminaires per IES HB-10.
 - b. Luminaire Dirt Depreciation (LDD) = 0.90, as per IES DG-4 for an enclosed and gasketed roadway luminaire installed in an environment with less than $150 \mu\text{g}/\text{m}^3$ airborne particulate matter and cleaned every four years.
 - c. Luminaire Ambient Temperature Factor (LATF) = 0.96
 - 3. Mesopic multipliers (i.e., effective luminance factors) shall not be used. All values shall assume photopic visual adaptation.
 - 4. Submit IES LM-63 format electronic file containing luminous intensity data associated with submitted LM-79 report(s) and used for point-by-point calculations.
- E. Summary of Joint Electron Devices Engineering Council (JEDEC) or Japan Electronics and Information Technology Industries (JEITA) reliability testing performed for LED packages
- F. Summary of reliability testing performed for LED driver(s)
- G. Written product warranty as per section 1.07 below
- H. Safety certification and file number indicating compliance with UL 1598

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1. Applicable testing bodies are determined by the US Occupational Safety Health Administration (OSHA) as Nationally Recognized Testing Laboratories (NRTL) and include: CSA (Canadian Standards Association), ETL (Edison Testing Laboratory), and UL (Underwriters Laboratory).
 - I. Documentation supporting any U.S. origin claims for the product, in accordance with FTC guidance.
 - J. Design Lights Consortium
 1. Luminaire shall be listed on the Design Lights Consortium Qualified Products list at <http://www.designlights.org/> and provide documentation verifying the listing to the Owner's Representative.
- 1.07 WARRANTY
- A. Provide a minimum ten-year warranty covering maintained integrity and functionality of:
 1. Luminaire housing (consisting of optical assembly, internal control devices, surge protection devices, internal wiring/terminal blocks, wiring, and connections)
 - a. Defects in material and workmanship that result in deterioration of the finish in the form of blistering, cracking, or peeling exhibited on more than 15% of the total finished surface area of the luminaire.
 2. LED light source(s)
 - a. Excessive lumen depreciation as defined by L70 Luminaire Lifetime (L70) or when 10% or greater of the discrete LED sources fail to illuminate. L70 shall be defined as 70% of the manufacturer published luminous flux data provided as part of the approved submittal package per the Submittal Requirements specified herein. Luminous Flux data shall be derived at the time of manufacture utilizing IESNA LM-79 testing methods.
 3. LED driver(s)
 - B. Warranty period shall begin upon final completion and Owner acceptance of the project.

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PART 2- PRODUCTS

2.01 LUMINAIRE REQUIREMENTS

A. General Requirements

1. Luminaires shall be as specified in Luminaire Performance Table.
2. Transmissive optical components shall be applied in accordance with OEM design guidelines to ensure suitability for the environment (e.g., electromagnetic, thermal, mechanical, chemical).
3. Luminaire shall be designed for ease of component replacement and end-of-life disassembly.
4. LED light source(s) and driver(s) shall be RoHS compliant.
5. Nominal luminaire input wattage shall account for nominal applied voltage and any reduction in driver efficiency due to sub-optimal driver loading.
6. Luminaires shall start and operate in -20°C to +40°C ambient.
7. Luminaire shall accept the voltage or voltage range specified at 60 Hz, and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
8. All internal components shall be assembled and pre-wired using modular electrical connections.
9. Electrically test fully assembled luminaires before shipment from factory.
10. Effective Projected Area (EPA) and weight of the luminaire shall not exceed the values indicated in Luminaire Performance Table.
11. Luminaires shall be designed for ease of component replacement and end-of-life disassembly.
12. Luminaires shall be rated for the ANSI C136.31 Vibration Level indicated in Luminaire Performance Table.
13. The following shall be in accordance with corresponding sections of ANSI C136.37.
 - a. Wiring and grounding
 - b. Terminal blocks for incoming AC lines (electrical mains wires)
 - c. Photocontrol receptacle and shorting cap
 - d. Latching and hinging
 - e. Mounting provisions
 - f. Ingress protection

B. LED

LED's shall be manufactured by CREE, Philips Lumileds, Luxeon, Nichia, Samsung LED and/or Osram Opto.

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C. Driver

1. Shall accept the voltage or voltage range indicated in Luminaire Performance Table at 60 Hz, and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
2. Shall have a minimum Power Factor (PF) of 0.90 at full input power and across specified voltage range.
3. Shall have a 530 mA maximum drive current.
4. Drivers shall be pre-wired to optical assembly and have a quick disconnect from power door.
5. Control signal interface
 - a. Luminaire designation(s) indicated "None" need not accept a control signal, and do not require a dimmable driver. If luminaire cannot be furnished without photocontrol receptacle, luminaire shall be furnished with ANSI C136.10 compliant photocontrol receptacle and shorting cap as directed by Owner.
 - b. Luminaire designation(s) indicated "ANSI C136.10, 3-pin" in Luminaire Performance Table shall be fully prewired and shall incorporate an ANSI C136.10 compliant receptacle. If a dimmable LED driver is specified, its control wires shall be accessible and electrically isolated.
 - c. Luminaire designation(s) indicated "ANSI C136.41, 5-pin" in Luminaire Performance Table shall be fully prewired and shall incorporate an ANSI C136.41 compliant receptacle. If a dimmable LED driver is specified, its 0-10V or control wires shall be connected to the receptacle pads as specified in ANSI C136.41.
 - d. Luminaire designation(s) indicated "ANSI C136.41, 7-pin" in Luminaire Performance Table shall be fully prewired and shall incorporate an ANSI C136.41 compliant receptacle. If a dimmable LED driver is specified, its 0-10V or control wires shall be connected to the receptacle pads as specified in ANSI C136.41; connection of the two remaining pads shall be by Supplier, capped in luminaire for future use, or as directed by Owner.

D. Electrical Immunity

1. Luminaire shall meet the performance requirements specified in ANSI C136.2 for electrical immunity, using the combination wave test level indicated.
2. Manufacturer shall indicate on Product Submittal Form whether failure of the electrical immunity system can possibly result in disconnect of power to luminaire.

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3. Luminaire shall be provided with integral surge suppression device with an elevated 20 kV/10kA rating per IEEE 62.41.2 Scenario 1, Category C.

E. Interference and Power Quality

1. Shall have a maximum Total Harmonic Distortion (THD) of 20% at full input power and across specified voltage range.
2. Shall comply with FCC 47 CFR Part 15 Interference Criteria for Class A (Non-Residential) digital devices.
3. Luminaire shall comply with Section 5.2.5 (luminaires rated for outdoor use) of ANSI C82.77 at full input power and across specified voltage range.

F. Electrical Safety Testing

1. Luminaire shall be listed for wet locations by an OSHA NRTL.
2. Luminaires shall have locality-appropriate governing mark and certification.
3. Luminaire shall meet the performance requirements specified in ANSI C136.2 for dielectric withstand, using the DC test level and configuration.

G. Painted or Finished Luminaire Surfaces Exposed to the Environment

1. Shall exceed a rating of six per ASTM D1654 after 1,000 hrs of testing per ASTM B117.
2. The coating shall exhibit no greater than 30% reduction of gloss per ASTM D523, after 500 hours of QUV testing at ASTM G154 Cycle 6.

H. Thermal Management

1. Luminaire shall start and operate in ambient temperature range specified.
2. Maximum rated case temperature of driver and other internal components shall not be exceeded when luminaire is operated in ambient temperature range specified.
3. Mechanical design of protruding external surfaces (heat sink fins) for shall facilitate hose-down cleaning and discourage debris accumulation.
4. Liquids or other moving parts shall be clearly indicated in submittals, shall be consistent with product testing, and shall be subject to review by Owner.

LED ROADWAY LUMINAIRE

I. Color Attributes

1. Color Rendering Index (CRI) shall be no less than 65.
2. Nominal Correlated Color Temperature (CCT) shall be as specified in Luminaire Performance Table.
3. If submitted nominal CCT specified in Luminaire Performance Table is listed in Table 1 below, measured CCT and Duv shall be as listed in Table 1 below.

Table 1. Allowable CCT and Duv (adapted from NEMA C78.377)

Manufacturer-Rated Nominal CCT (K)	Allowable LM-79 Chromaticity Values	
	Measured CCT (K)	Measured Duv
2700	2580 to 2870	-0.006 to 0.006
3000	2870 to 3220	-0.006 to 0.006
3500	3220 to 3710	-0.006 to 0.006
4000	3710 to 4260	-0.005 to 0.007
4500	4260 to 4746	-0.005 to 0.007
5000	4745 to 5311	-0.004 to 0.008
5700	5310 to 6020	-0.004 to 0.008
6500	6020 to 7040	-0.003 to 0.009

4. If submitted nominal CCT specified is not listed in Table 1, measured CCT and Duv shall be as per the criteria for Flexible CCT defined in NEMA C78.377.

J. Identification

1. Luminaire shall have an external label per ANSI C136.15.
2. Luminaire shall have an internal label per ANSI C136.22.

- K. Housing. The luminaire shall be gasketed and sealed, and UL listed for wet locations. The housing shall be fabricated from die cast aluminum or cast aluminum alloy. The luminaire optical assembly shall have a minimum IEC ingress penetration rating of IP65. When furnished with a lens and frame, the lens shall be made of crystal clear, impact and heat resistant flat glass. The lens and frame shall be securely attached to the main housing and be readily removable for servicing the LED optical assembly. The drivers shall be mounted in the rear of the luminaire on the inside of a hinged removable door or on a removable mounting pad. The removable door or pad shall be secure when fastened in place and all individual components shall be secure upon the removable element. Each component shall be readily removable from the removable element for replacement. The luminaire mounting shall slip fit on a mast arm with a 2" tenon (2.375" outer diameter), and shall have a barrier to limit the amount of insertion. A tenon guard shall be provided to protect

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against birds and similar intruders. The luminaire shall be provided with a leveling surface and shall be capable of being tilted by ± 5 degrees and rotated to any degree with respect to the supporting arm. The housing shall be designed for natural removal of dirt and debris and to ensure maximum heat transfer and long LED life.

The terminal block shall be oriented for easy access within electrical cavity to allow maintenance personnel to access wire connections. The terminal block shall accommodate #8 - #14 AWG copper wires.

- N. Hardware. All hardware and latches shall be high-strength corrosion resistant stainless steel of heavy duty construction. All hardware shall be captive, not susceptible to falling from the luminaire during maintenance operations.

2.02 PRODUCT MANUFACTURERS

- A. Manufacturer must have a minimum of a 15-year history of designing and manufacturing roadway luminaires and at least 10-year history of designing and manufacturing LED luminaires for some form of outdoor application which can include roadway, site, parking garages, landscape or signage.

PART 3- EXECUTION

3.01 FACTORY TESTING AND INSPECTION

- A. Testing of luminaires shall be required whenever the quantity of luminaires of a given type is 30 or more. For each luminaire types to be so tested, one luminaire plus one luminaire for each additional 50 luminaires shall be tested, i.e., no test is required if luminaire quantity is 1 to 29; test two luminaires if quantity is 30-79; test three luminaires if quantity is 80-129, etc. The Contractor shall coordinate selecting the independent testing agency and propose a qualified independent agent, familiar with the luminaire requirements and test procedures, for approval by the Engineer, to witness the required tests as performed by the luminaire manufacturer. Any costs associated with testing shall be included in the cost of the luminaire.

The independent witness shall select from the project luminaires at the manufacturer's facility or at the Contractor's storage facility, the luminaires for testing. In all cases, the selection of the luminaires shall be a random selection from the entire completed lot of luminaires required for the contract. Selections from partial lots will not be allowed.

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The selection of the proposed independent witness (independent laboratory as required) shall be presented with the information submitted for approval.

The summary report and the test results shall be certified by the independent test laboratory or the independent witness as applicable.

- B. Testing shall be performed by the luminaire manufacturer and shall include both photometric and electrical testing.
- C. Photometric testing shall be performed in accordance with I.E.S. recommendations and, as a minimum shall yield an isofootcandle chart with max candela point and half candela trace indicated, and isocandela diagram, maximum plane and maximum cone plots of candela, a candlepower table (house and street side), a coefficient of utilization chart, a luminous flux distribution table, BUG rating report, initial delivered lumens and complete calculations based on specified requirements and test results.
- D. Electrical testing shall conform to NEMA and ANSI standards and, as a minimum shall include a complete check of wiring connections and a table of characteristics showing input amperes, watts, power factor, total harmonic distortion and LED drive current.
- E. The test results shall be reviewed by the manufacturer for conformance to published data. The manufacturer shall certify that the luminaire tested conforms to the performance data that is on file with the Owner's Representative. A summary report of the test results shall be sent by certified mail directly to the Engineer. A copy of this material shall be sent to the Contractor and the Owner's Representative at the same time.
- F. Should any of the tested luminaires fail to meet the manufacturers published data, all luminaires shall be replaced or corrected to achieve the required performance. If luminaires are replaced, the replacement luminaires shall be tested in accordance with the above requirements. In the case of corrections, the manufacturer shall advise the Owner's Representative of the corrections made and the corrected luminaires shall be retested in accordance with the above requirements. In no case shall the luminaires be shipped by the manufacturer until the Owner's Representative has received a summary report of the test results and written certification from the manufacturer that the tested luminaires are in conformance with performance data as required above.
- G. Testing Documentation Requirements. Certified Test Reports with the above results shall be supplied for each shipment. Certified test reports shall include the following

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identification information:

1. Manufacturer's name
2. Type of luminaires
3. Quantity of luminaires
4. A copy of shipping ticket
5. Manufacturer's lot number

3.02 INSTALLATION

- A. Luminaires shall be installed in accordance with Article 821 of IDOT Standard Specifications for Road and Bridge Construction, and Roadway Luminaires (Tollway BDE) Special Provision.

3.03 PACKAGING AND DELIVERY

- A. Preparation for Delivery. Luminaires shall be packaged in accordance with the standard commercial practices in the industry. Each shipping container shall be clearly marked to indicate contents, the manufacturer, date of manufacture, make, model, electrical ratings, purchase order number, and Contract Number.

3.04 MANUFACTURER SERVICES

- A. Manufacturer or local sales representative shall provide installation and troubleshooting support via telephone and/or email.
- B. For ease of maintenance and parts replacement, the luminaire manufacturer shall provide drawings indicating luminaire components and part numbers.

PART 4- MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

Measurement will be made for each luminaire furnished and installed.

4.02 PAYMENT

- A. Payment for the Work specified in this Section will be made for each LED Roadway Luminaire, and as listed in the Schedule of Prices.
- B. This price shall be full compensation for furnishing all materials; and for all preparation; and for all labor, equipment, tools, and incidentals necessary for the Work as required by the Contract Specifications and Drawings.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work

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shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain.

END OF SECTION

REMOVAL OF LUMINAIRE

SECTION 26 56 40

PART 1- GENERAL

1.01 DESCRIPTION

The Work shall consist of removing an existing luminaire.

PART 2- PRODUCTS

Not applicable to this Section.

PART 3- EXECUTION

3.01 REMOVAL

At locations indicated by the Contract Documents or Owner's Representative, luminaires shall be disconnected from pole wiring and removed from existing luminaire arms. This work shall be performed in accordance with Section 841 of the Standard Specifications. Luminaires which are deemed unsalvageable shall be disposed of in accordance with Article 202.03. Ten luminaires in good working condition with relatively clear lenses that are deemed salvageable shall be boxed in new containers approved by the Owner's Representative and delivered and unloaded at the Public Works Department building.

PART 4- MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. Measurement will be made for each luminaire removed (including disposal of or returning the luminaire to the Village).

4.02 PAYMENT

- A. Payment for the Work specified in this Section will be made for each for removal of luminaire, as listed in the Schedule of Prices.
- B. This price shall be full compensation for furnishing all materials; and for all preparation; and for all labor, equipment, tools, and incidentals necessary for the Work as required by the Contract Specifications and Drawings.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices proposed for the various items to which they pertain.

END OF SECTION

REMOVE AND REPLACE EXISTING POLE WIRE, 1/C #10

SECTION 26 56 50

PART 1- GENERAL

1.01 DESCRIPTION

The Work shall consist of removing and replacing existing pole wires (between the luminaire and the fuse holders), fuseholders, and fuses.

PART 2- PRODUCTS

Pole wire shall be 1/C #10 XLP-TYPE USE wire, in accordance with Article 1066.09 of the Standard Specifications.

Fuseholders shall be 2-pole breakaway type fuse holders and insulating boots (Bussman HEB Series or approved equal). Fuses shall be 5A time-delay type fuses, with neutrals non-fused (Bussman FNQ Series or approved equal).

Luminaires primarily operate at 240 volts, however there are some which operate at 120 volts. There are two pole wires per luminaire/light pole and one 2-pole breakaway fuseholder will be required per pole. Neutral wires shall be non-fused. Quantities reflect 3-pole wires per light standard at 30' of vertical cable/wire.

PART 3- EXECUTION

3.01 REMOVAL AND REPLACEMENT

Contractor shall remove existing pole wires, fuseholders and fuses, and dispose of all removed material in accordance with Article 202.03.

Existing splices of pole wiring to branch circuit cables (located in the base of the light poles) are to remain, and shall not be removed.

New pole wire, fuseholders and fuses shall be installed in accordance with Section 821 of the Standard Specifications.

All work shall be performed in accordance with the NEC, Standard Specifications, and local Municipal Code.

PART 4- MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. Measurement will be made per foot of pole wire removed and replaced, and shall include removing and replacing existing fuseholders and fuses.

REMOVE AND REPLACE EXISTING POLE WIRE, 1/C #10

4.02

PAYMENT

- A. Payment for the Work specified in this Section will be made per foot of pole wire removed and replaced, as listed in the Schedule of Prices.
- B. This price shall be full compensation for furnishing all materials; and for all preparation; and for all labor, equipment, tools, and incidentals necessary for the Work as required by the Contract Specifications and Drawings.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the price.

END OF SECTION

**MUNICIPAL SERVICES COMMITTEE MEETING
AGENDA ITEM SUMMARY SHEET**

AGENDA ITEM DESCRIPTION

**DISCUSSION –
MOSQUITO ABATEMENT PROGRAM CONTRACT:
CLARKE ENVIRONMENTAL**

COMMITTEE REVIEW

- ☐ Finance/Administration
☒ Municipal Services
☐ Public Safety

Meeting Date:

January 12, 2015

- | | |
|---|---|
| <input type="checkbox"/> Discussion Only | <input checked="" type="checkbox"/> Approval of Staff Recommendation (for consideration by Village Board at a later date) |
| <input type="checkbox"/> Seeking Feedback | <input type="checkbox"/> Approval of Staff Recommendation (for <u>immediate</u> consideration by Village Board) |
| <input type="checkbox"/> Regular Report | <input type="checkbox"/> Report/documents requested by Committee |

BACKGROUND

Our three-year contract with Clarke Mosquito Control to provide mosquito abatement services for the Village expired after the 2014 season. Therefore, staff has met with representatives from Clarke Mosquito to discuss the terms of renewal contract provisions and to ensure that the contract price remains competitive with surrounding towns that receive the same or similar services from Clarke.

The result is that Clarke has agreed to offer continued services to the Village for a new three (3) year term. Given the price of pesticides has risen, Clarke has proposed a 2% contract price increase to \$25,700 for the 2015 season. However, they would agree to freeze that amount for an additional two (2) years, if we entered into another three (3) year contract. Therefore, the cost of the 2015, 2016 and 2017 program would be \$25,700. Staff is also recommending, similar to the last contract, that an additional \$6,400 be budgeted for various optional services such as adulticiding (spraying), both localized and community wide, should the need arise to combat the continuing threat of WNV.

The technical treatment terms of the contract, including Village-wide catch basin treatment four (4) times a year, or roughly once a month during the summer season, will remain unchanged. The contract will still include the use of new insecticides, specifically Altocid XR® and Vectolex WSP®, which are sustained release products that can provide the required coverage for up to 120 days without re-treatment. To ensure adequate protection is in place prior to the onset of mosquito breeding attributed to West Nile Virus (WNV), a second catch basin treatment, referred to as a "booster" treatment, will be performed in mid-August.

STAFF RECOMMENDATION

Attached, please find a copy of the proposal from Clarke Environmental Mosquito Management, Inc., reflecting the extended program. Provided the proposal is acceptable to the Committee, staff would anticipate placing this item on the agenda for a future regular Village Board meeting for consideration.



**Clarke Environmental Mosquito Management, Inc.,
Professional Services Outline for
The 2015-2017 Village of Willowbrook
Environmental Mosquito Management (EMM) Program**

Part I. General Service

- A. Aerial Survey and Geographic Information System (GIS) Mapping
- B. Computer System and Record Keeping Database
- C. Public Relations and Educational Brochures
- D. Mosquito Hotline Citizen Response – (800) 942-2555
- E. Comprehensive Insurance Coverage naming the Village of Willowbrook additionally insured
- F. Program Consulting and Quality Control Staff
- G. Monthly Operational Reports, Periodic Advisories, and Annual Report
- H. Regulatory compliance on local, state, and federal levels

Part II. Surveillance and Monitoring

- A. Floodwater Mosquito Migration Model:
The use of weather data and computer model to predict the arrival of *Aedes vexans* brood (hatch) and peak annoyance periods. (Clarke will contact the Village of Willowbrook representative and inform him of the impending brood arrival.)
- B. Arbovirus Surveillance:
 - 1. Clarke New Jersey Light Trap Network: Operation of one (1) traps within the Village of Willowbrook to monitor and evaluate adult mosquito activity.
- C. Weather Monitoring – Operational Forecasts

Part III. Larval Control

- A. Targeted Mosquito Management System (TMMS™) computer database and site management.
- B. Larval Site Monitoring: 10 inspections
 - 1. Two (2) complete inspections of up to 72 sites as outlined by most recent Clarke GIS Survey.
 - 2. Five (5) targeted inspections of up to 42 breeding areas as determined by the computerized Clarke Targeted Mosquito Management System™.
 - 3. Three (3) targeted inspections of up to 30 known *Culex spp.* breeding areas as determined by the computerized Clarke Targeted Mosquito Management System™.
 - 4. Inspections of sites called in by residents on the Mosquito Hotline.
- C. Prescription Larval Control will be performed with VectoLex® (*Bacillus sphaericus*), VectoBac® (*Bacillus thuringiensis israelensis* - Bti), Abate®, Natular®, and/or Altosid® mosquito larvicide as described in the following sections.
 - 1. Larval Control: The program provides for 50.4 acres of single brood or 30 day residual product with backpack, hand, or helicopter equipment.



2. Larval Control: Stocking of 1,000 mosquito fish (*Gambusia affinis*) for biological control.
3. Catch Basins: One treatment of up to 775 catch basins, inlets and manholes using Altosid®XR extended residual slow release insecticide for up to 150 day control.
4. Catch Basins: One (1) late-season treatment of up to 775 street side catch basins, inlets and manholes using Vectolex® WSP a sustained release insecticide for control of up to 30 days.
5. Catch Basins: Back Yard Catch Basins: One (1) treatment of up to one known backyard catch basin at 6031 Bentley using Altosid®XR extended residual slow release insecticide for control of up to 150 days.

Part IV. Adult Control

- A. Adulticiding in mosquito harborage areas:
- B. Upon the request of Village staff, backpack barrier treatments using a synthetic pyrethroid insecticide of up to 1 mile for residual control of adult mosquitoes in isolated residential areas experiencing severe mosquito annoyance conditions. Any authorized backpack barrier treatments will be priced at \$412.34 per treatment.
- C. Adulticiding in Residential Areas:
 1. As authorized by Village staff, community-wide truck ULV treatments of up to 46.5 miles of streets using Anvil® or synthetic pyrethroid insecticide. Any authorized community ULV treatments will be priced at \$ 3,169.55 per treatment.
- D. Adulticiding Operational Procedures
 1. Notification of community contact.
 2. Weather limit monitoring and compliance.
 3. Notification of residents on Clarke Call Notification List.
 4. ULV particle size evaluation.
 5. Insecticide dosage and quality control analysis.

2015-2017 EMM Payment Total Price for Parts I, II, III, IV**

\$25,700.00

****NPDES Permit:** A National Pollutant Discharge Elimination System (NPDES) permit is necessary for the execution of the work for mosquito control effective October 31, 2011. Any additional costs associated with activities and/or services that may be required by Clarke in order to comply with an NPDES permit are not included in this proposal.



2015-2017 Proposal

**Clarke Environmental Mosquito Management, Inc.,
Professional Services Outline for
The 2015-2017 Village of Willowbrook
Environmental Mosquito Management (EMM) Program**

- I. **Program Payment Plan:** For Parts I, II, III, and IV as specified in the 2015-2017 Professional Services Price Outline, the total for the 2015-2017 program is \$25,700.00 per year. The payments will be due on May 1st, June 1st, July 1st, & August 1st according to the payment schedule below. Any additional treatments beyond the core program will be invoiced when the treatment is completed. The program pricing for 2016-2017 will be held at 2015 rates.

PROGRAM PAYMENT PLAN

Month	2015-2017
May 1	\$6,425.00
June 1	\$6,425.00
July 1	\$6,425.00
August 1	\$6,425.00
TOTAL	\$25,700.00

II. **Approved Contract Period and Agreement:**

☐ 2015-2017 Season

For Village of Willowbrook:

Sign Name: _____ Title: _____ Date: _____

For Clarke Environmental Mosquito Management, Inc.:

Name: Emily Glasberg Title: Key Accounts Manager Date: 12/5/2014



2015-2017 Proposal

**Clarke Environmental Mosquito Management, Inc.,
Professional Services Outline for
The 2015-2017 Village of Willowbrook
Environmental Mosquito Management (EMM) Program**

Administrative Information:

Invoices should be sent to:

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Office Phone: _____ Fax: _____ P.O. # _____
E-mail: _____ County: _____

****In an effort to be more sustainable, we ask that you provide us with an
Email address that the invoices should be sent to.****

Treatment Address (if different from above): County: _____

Address: _____
City: _____ State: _____ Zip: _____

Contact Person for Village of Willowbrook:

Name: _____ Title: _____
Office Phone: _____ Fax: _____ E-Mail: _____
Home Phone: _____ Cell: _____ Pager: _____

Alternate Contact Person for Village of Willowbrook:

Name: _____ Title: _____
Office Phone: _____ Fax: _____ E-Mail: _____
Home Phone: _____ Cell: _____ Pager: _____

Please sign and return a copy of the complete contract for our files to:

Clarke Environmental Mosquito Management, Inc., Attn: Emily Glasberg
675 Sidwell Ct. St Charles, IL 60174 or email to eglasberg@clarke.com



EST. 1960

Willowbrook

7760 Quincy Street
Willowbrook, IL 60527-5594

Phone: (630) 323-8215 Fax: (630) 323-0787 www.willowbrookil.org

MONTHLY REPORT
MUNICIPAL SERVICES DEPARTMENT
Permits issued for the month of November, 2014

<u>Mayor</u>		
Frank A. Trilla		
<u>Village Clerk</u>		
Leroy R. Hansen		
<u>Village Trustees</u>		
Sue Berglund		
Umberto Davi		
Terrence Kelly		
Michael Mistele		
Gayle Neal		
Paul Oggerino		
<u>Village Administrator</u>		
Tim Halik		
<u>Chief of Police</u>		
Mark Shelton		
	Alarm	1
	Deck	1
	Demo	1
	New Canopy	1
	Office Renovation	1
	Retaining wall	1
	Roof	2
	Security System	1
	SFR Remodel	1
	Sign	1
	Special Promotion	1
	Temporary Electric Service	1
	Three Season Sunroom	1
	Window Replacement	4
	TOTAL	18
	Final Certificates of Occupancy	0
	Temporary Certificates of Occupancy	0
	Permit Revenue for November, 2014	4,709.37
	Total Revenue Collected for Fiscal Year To Date	129,960.76
	Total Budgeted for Fiscal Year 2014/15	175,000.00
	Total Percentage of Budgeted Revenue Collected to Date	74.26

Respectfully submitted,

Timothy Halik
Village Administrator



Proud Member of the
Illinois Route 66 Scenic Byway

MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE

Fiscal Year 2014/15

MONTH	CURRENT FISCAL YEAR	PRIOR FISCAL YEAR
MAY	\$ 12,317.12	\$ 21,169.24
JUNE	\$ 8,573.76	\$ 19,335.70
JULY	\$ 15,008.48	\$ 48,123.47
AUGUST	\$ 8,890.90	\$ 17,977.86
SEPTEMBER	\$ 44,003.58	\$ 18,865.93
OCTOBER	\$ 36,457.55	\$ 12,371.02
NOVEMBER	\$ 4,709.37	\$ 26,381.46
DECEMBER		\$ 8,539.90
JANUARY		\$ 19,495.36
FEBRUARY		\$ 20,254.23
MARCH		\$ 19,318.62
APRIL		\$ 26,032.69
COLLECTED REVENUE	\$ 129,960.76	\$ 258,000.48
BUDGETED REVENUE	\$ 175,000.00	\$ 150,000.00
REVENUES COLLECTED- (OVER)/UNDER BUDGET	129,960.76	\$ (108,000.48)
PERCENTAGE OF BUDGETED REVENUE COLLECTED	74.26	172

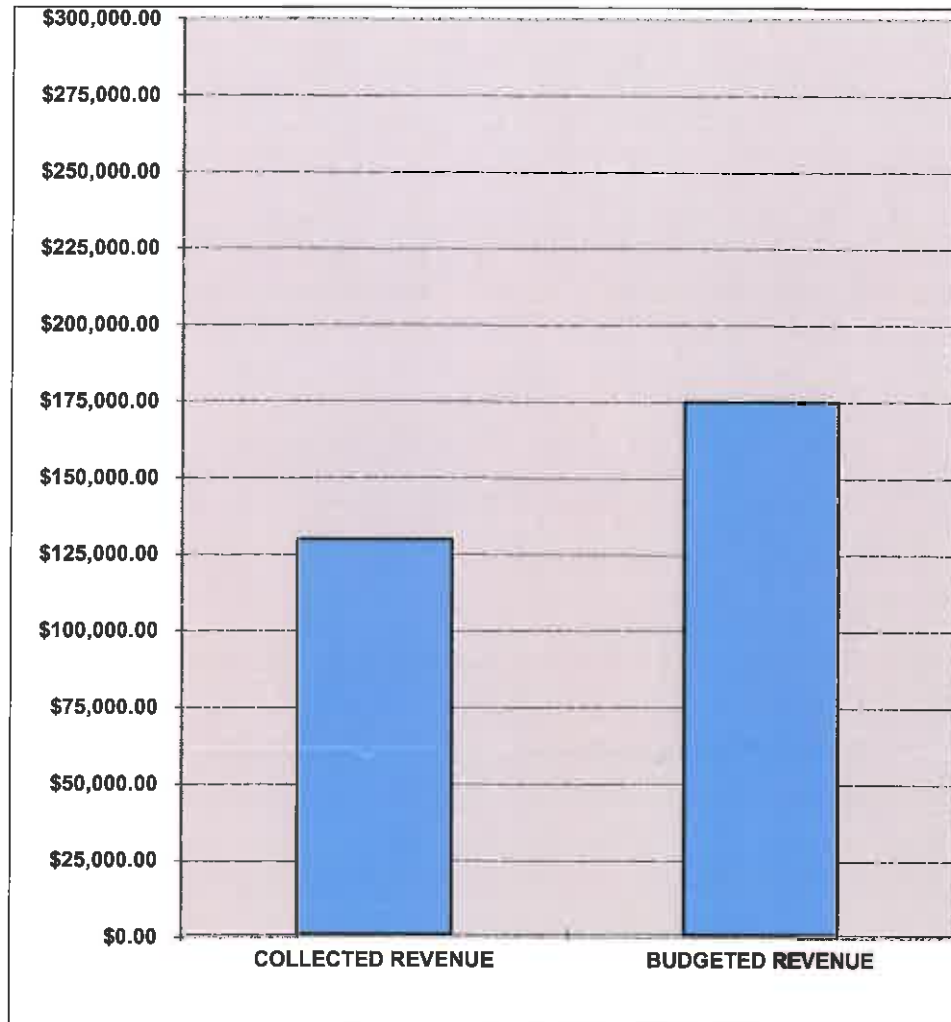
MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE

	Fiscal Year 14/15	Fiscal Year 13/14
COLLECTED REVENUE	\$ 129,960.76	\$ 258,000.48
BUDGETED REVENUE	\$ 175,000.00	\$ 150,000.00

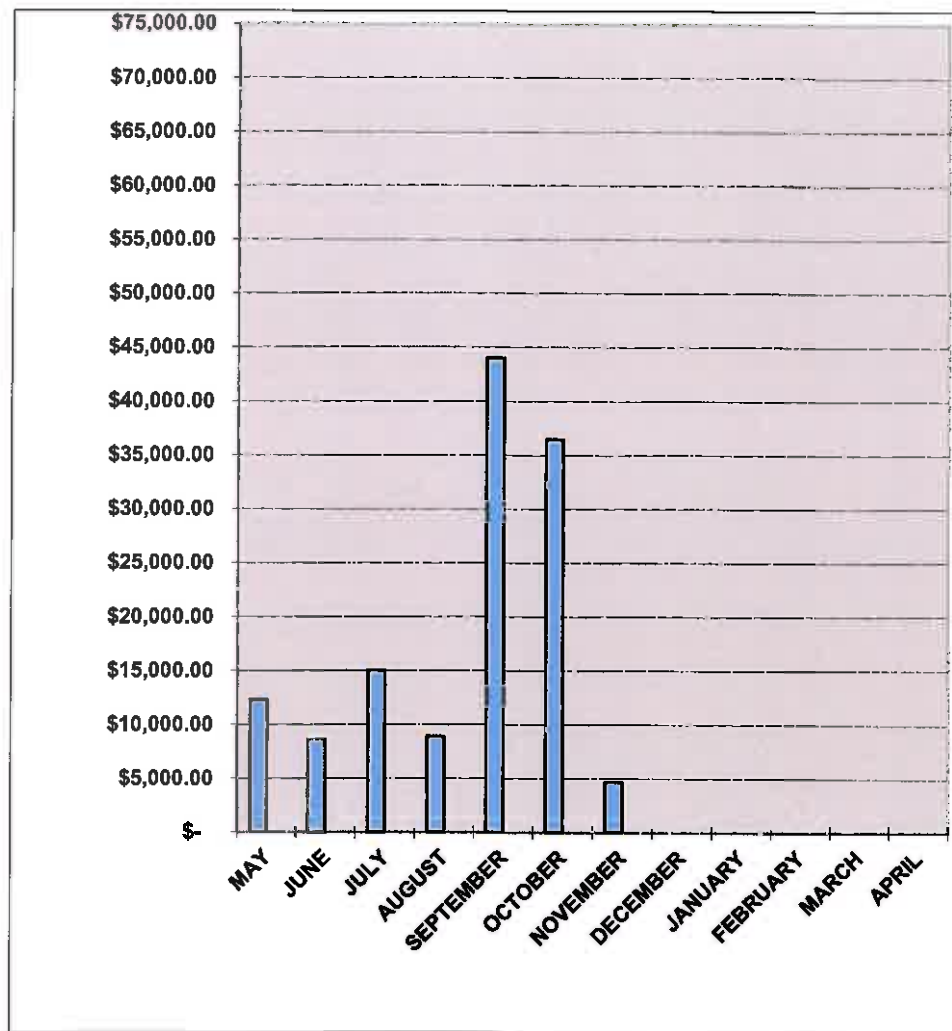
MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE



MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE



2012-13-14

Permit	Date Issued:	Name:	Address:	Permit Purpose:	Business Name:	Fee:	RES / COMM:	Date Released:	Date Permit Expires:
14-332	11/03/14	Faisal Nabulsi	448 Creekside Court	Asphalt		\$ 125.00	R	11/03/14	11/03/15
14-360	11/13/14	Cate Parlier	25 Portwine	Deck		\$ 50.00	R	11/13/14	11/13/15
14-352	11/15/14	Dean Vardouniotis	6340 Americana Dr.	Demo		\$ 375.00	R	11/14/14	11/14/15
14-326	11/11/14	Austin Highland	7000 Adams Street	New Canopy	Austin Highland	\$ 300.00	C	11/11/14	11/11/15
14-347	11/03/14	J. Cori Bedford	7100 Madison Street	Office Renovation	Trane	\$ 500.00	C	11/03/14	11/03/15
14-350	11/14/14	Adam Slahor	5808 S. Bentley	Retaining wall		\$ 485.00	R	11/14/14	11/14/15
14-353	11/06/14	Larry Kappmeyer	151 Rodgers Ct.	Roof		\$ 35.00	R	11/03/14	11/03/15
14-358	11/11/14	James Brozek	7718 Appletree Lane	Roof		\$ 35.00	R	11/11/14	11/11/15
14-363	11/11/14	James Intagliata	6425 Emerald Ct.	Security System		\$ 50.00	R	11/11/14	11/11/15
14-351	11/04/14	Tadeusz Zborowski	7630 Brookbank	SFR Remodel		\$ 840.00	R	11/03/14	11/03/15
14-277	11/06/14	Hinsdale Commons	6300 Kingery	Sign	Café LaFortuna	\$ 499.38	C	11/06/14	11/06/15
14-359	11/13/14	Clovers Garden	735 Plainfield Rd	Special Promotion	Clovers Garden	\$ 150.00	C	11/13/14	11/13/15
14-355	11/26/14	Pete's Fresh Market	840 Plainfield	Temporary Elec Service	Pete's Fresh Market	\$ 200.00	C	11/26/14	11/26/15
14-354	11/18/14	Tao Duan	5805 Holmes Ave	Three Season Sunroom		\$ 617.99	R	11/18/14	11/18/15
14-343	11/06/14	Alexander Tacev	7276 Maplewood Ct	Window Replacement		\$ 75.00	R	11/06/14	11/06/15
14-364	11/18/14	Steve Budzik	7925 Williams Drive	Window Replacement		\$ 75.00	R	11/18/14	11/18/15
14-365	11/18/14	Michael Huber	30 Kyle Court	Window Replacement		\$ 75.00	R	11/18/14	11/18/15
14-366	11/18/14	Douglas Brandin	236 Gull Island	Window Replacement		\$ 75.00	R	11/18/14	11/18/15

VILLAGE OF WILLOWBROOK

PRCT. OF YR: 58.33

RUN: 12/01/14 10:31AM

REVENUE REPORT FOR NOVEMBER, 2014

PAGE: 1

ACCT. NO.	DESCRIPTION	RECEIVED THIS MONTH	RECEIVED THIS YEAR	BUDGET AMOUNT	PERCENT COLLECTED	BUDGET REMAINING
<u>GENERAL CORPORATE FUND</u>						
<u>Operating Revenue</u>						
<u>Property Taxes</u>						
01-310-101	PROPERTY TAX LEVY-SRA	1,527.93	70,850.82	71,135.00	99.60	284.18
01-310-102	PROPERTY TAX LEVY-RD & BRIDGE	2,085.02	97,092.44	95,000.00	102.20	-2,092.44
01-310-103	PRIOR YEAR TAX COLL	0.00	0.00	0.00	0.00	0.00
*TOTAL	Property Taxes	3,612.95	167,943.26	166,135.00	101.09	-1,808.26
<u>Other Taxes</u>						
01-310-201	MUNICIPAL SALES TAX	349,799.86	2,172,855.52	3,450,000.00	62.98	1,277,144.48
01-310-202	ILLINOIS INCOME TAX	0.00	479,263.46	787,000.00	60.90	307,736.54
01-310-203	AMUSEMENT TAX	11,788.30	58,780.82	88,500.00	66.42	29,719.18
01-310-204	REPLACEMENT TAX	0.00	765.19	1,220.00	62.72	454.81
01-310-205	UTILITY TAX	72,128.53	582,610.97	1,075,000.00	54.20	492,389.03
01-310-207	TELECOMMUNICATION LEASE	0.00	1,224.50	34,380.00	3.56	33,155.50
01-310-208	PLACES OF EATING TAX	42,105.85	295,423.48	450,000.00	65.65	154,576.52
01-310-209	WATER TAX	12,739.78	85,794.45	174,013.00	49.30	88,218.55
01-310-210	WATER TAX - CLARENDON WATER CO	0.00	572.52	1,000.00	57.25	427.48
*TOTAL	Other Taxes	488,562.32	3,677,290.91	6,061,113.00	60.67	2,383,822.09
<u>Licenses</u>						
01-310-301	VEHICLE LICENSES	0.00	0.00	0.00	0.00	0.00
01-310-302	LIQUOR LICENSES	25,000.00	36,500.00	60,750.00	60.08	24,250.00
01-310-303	BUSINESS LICENSES	20,263.00	47,222.00	68,000.00	69.44	20,778.00
01-310-305	VENDING MACHINE	825.00	1,770.00	2,000.00	88.50	230.00
01-310-306	SCAVENGER LICENSES	2,000.00	4,250.00	6,000.00	70.83	1,750.00
*TOTAL	Licenses	48,088.00	89,742.00	136,750.00	65.62	47,008.00
<u>Permits</u>						
01-310-401	BUILDING PERMITS	4,709.37	129,960.76	175,000.00	74.26	45,039.24
01-310-402	SIGN PERMITS	0.00	1,226.80	5,000.00	24.54	3,773.20
01-310-403	OTHER PERMITS	380.00	704.00	400.00	176.00	-304.00
01-310-404	COUNTY BMP FEE	0.00	2,655.00	0.00	0.00	-2,655.00
*TOTAL	Permits	5,089.37	134,546.56	180,400.00	74.58	45,853.44
<u>Fines</u>						
01-310-501	CIRCUIT COURT FINES	10,331.93	84,932.78	120,000.00	70.78	35,067.22
01-310-502	TRAFFIC FINES	1,675.00	18,791.66	25,000.00	75.17	6,208.34
01-310-503	RED LIGHT FINES	33,800.00	376,225.00	540,000.00	69.67	163,775.00
*TOTAL	Fines	45,806.93	479,949.44	685,000.00	70.07	205,050.56



EST. 1960

Willowbrook

835 Midway Drive
Willowbrook, IL 60527-5549

Phone: (630) 323-8215 Fax: (630) 323-0787 www.willowbrookil.org

Mayor

Frank A. Trilla

Village Clerk

Leroy R. Hansen

Village Trustees

Sue Berglund

Umberto Davi

Terrence Kelly

Michael Mistele

Gayle Neal

Paul Oggerino

Village Administrator

Tim Halik

Chief of Police

Mark Shelton

MONTHLY REPORT
MUNICIPAL SERVICES DEPARTMENT
Permits issued for the month of December, 2014

Asphalt	1
Basement Remodel	2
Damaged Canopy	1
Deck	1
Elevator Restrictor	1
Emergency Lighting	3
Fence	2
Fire Alarm	1
I P Link Install	1
Interior Build out	1
Lab Expansion	1
Overhead Door	1
Plan Review	3
Remodel	1
Restaurant Remodel	1
Roof	4
Sign	1
Swim Club	1
Water Heater	5
Window Replacement	3
TOTAL	35
Final Certificates of Occupancy	0
Temporary Certificates of Occupancy	0
Permit Revenue for December, 2014	52,874.78
Total Revenue Collected for Fiscal Year To Date	182,835.54
Total Budgeted for Fiscal Year 2014/15	175,000.00
Total Percentage of Budgeted Revenue Collected to Date	104.48

Respectfully submitted,

Timothy Halik
Village Administrator



Proud Member of the
Illinois Route 66 Scenic Byway

MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE

Fiscal Year 2014/15

MONTH	CURRENT FISCAL YEAR	PRIOR FISCAL YEAR
MAY	\$ 12,317.12	\$ 21,169.24
JUNE	\$ 8,573.76	\$ 19,335.70
JULY	\$ 15,008.48	\$ 48,123.47
AUGUST	\$ 8,890.90	\$ 17,977.86
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OCTOBER	\$ 36,457.55	\$ 12,371.02
NOVEMBER	\$ 4,709.37	\$ 26,381.46
DECEMBER	\$ 52,874.78	\$ 8,539.90
JANUARY		\$ 19,495.36
FEBRUARY		\$ 20,254.23
MARCH		\$ 19,318.62
APRIL		\$ 26,032.69
COLLECTED REVENUE	\$ 182,835.54	\$ 258,000.48
BUDGETED REVENUE	\$ 175,000.00	\$ 150,000.00
REVENUES COLLECTED- (OVER)/UNDER BUDGET	(182,835.54)	\$ (108,000.48)
PERCENTAGE OF BUDGETED REVENUE COLLECTED	104.48	172

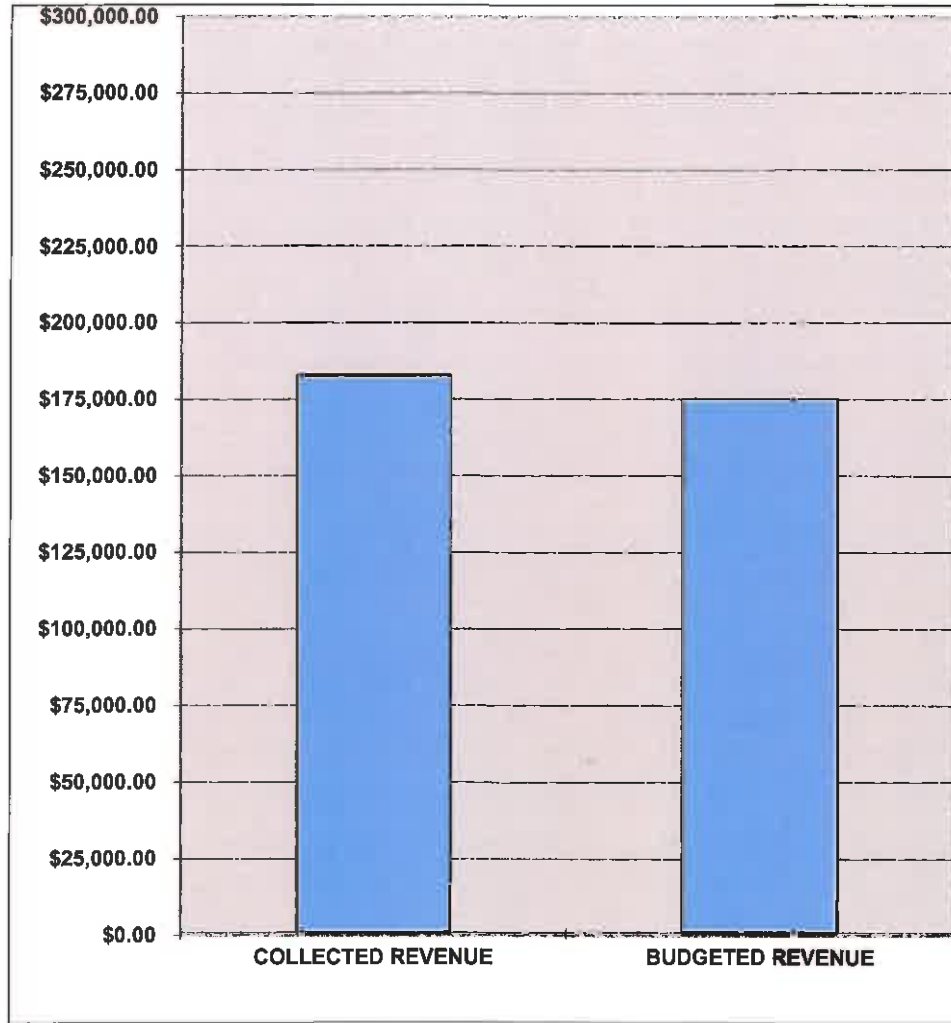
MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE

	Fiscal Year 14/15	Fiscal Year 13/14
COLLECTED REVENUE	\$ 182,835.54	\$ 258,000.48
BUDGETED REVENUE	\$ 175,000.00	\$ 150,000.00

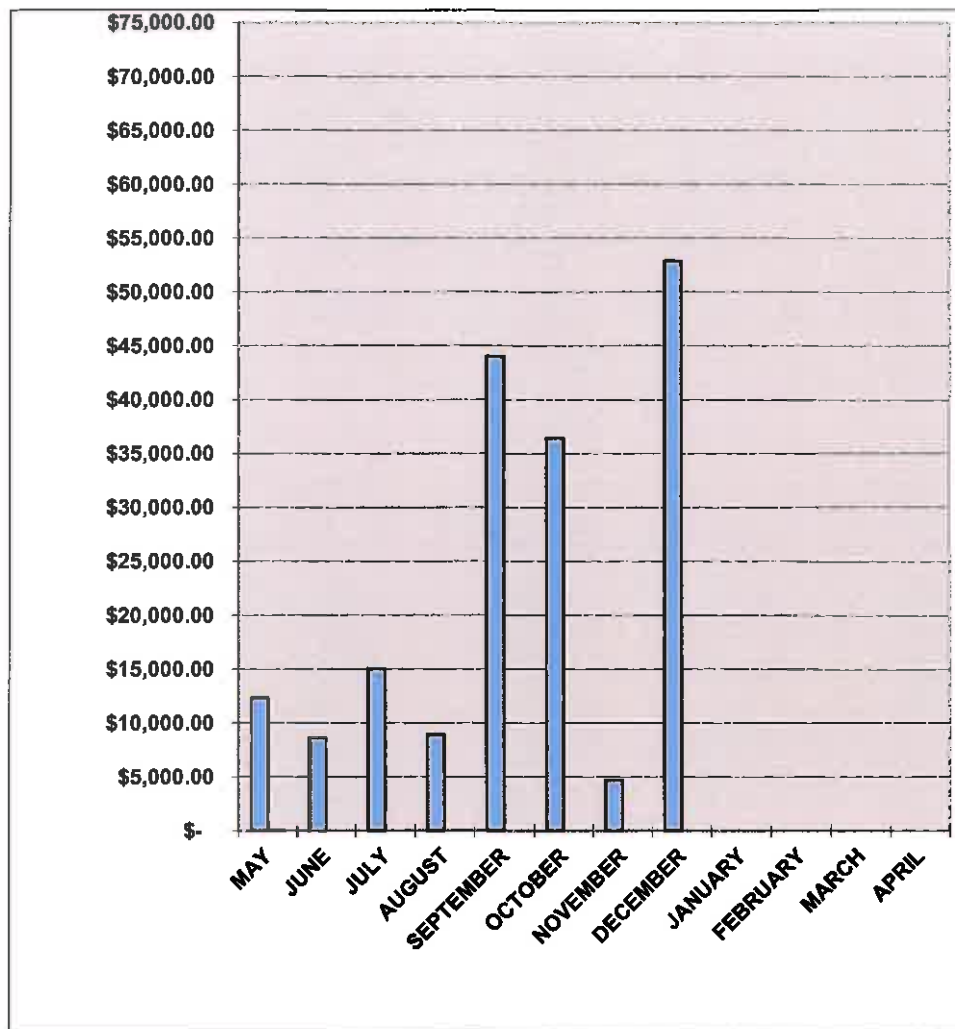
MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE



MUNICIPAL SERVICES DEPARTMENT

PERMIT REVENUE



Permit	Date Issued:	Name:	Address:	Permit Purpose:	Business Name:	Fee:	RES / COMM:	Date Released:	Date Permit Expires:
14-378	12/03/14	Marke Teele	830 W. 75th Street	Asphalt patchwork		\$ 150.00	R	12/03/14	12/03/15
14-371	12/03/14	Ryan Shriber	131 Somerset Rd	Basement remodel		\$ 557.60	R	12/03/14	12/03/15
14-383	12/15/14	Uday Deo	5330 Western Ave	Basement remodel		\$ 1,106.32	R	12/15/14	12/15/15
14-381	12/09/14	Nusrat Choudhri	6949 Kingery Hwy	Damaged Canopy	Phillips 66 Station	\$ 3,326.00	C	12/09/14	12/09/15
14-373	12/02/14	George Custer	6341 Thurlow Street	Deck		\$ 50.00	R	12/02/14	12/02/15
14-249	12/03/14	Rashmi Patel	820 W. 75th Street	Elevator restrictor	Super 8	\$ 275.00	C	12/03/14	12/03/15
14-401	12/23/14	Alice Jara	Knolls Condo Assoc.	Emergency Lighting		\$ 175.00	C	12/23/14	12/23/15
14-400	12/23/14	A. Jara	6169 Knollwood	Emergency Lighting		\$ 175.00	R	12/23/14	12/23/15
14-399	12/23/14	A. Jara	6157 Knollway	Emergency Lighting		\$ 175.00	R	12/23/14	12/23/15
14-388	12/30/14	Chuck Weissenburger	6404 Bentwood Lane	Fence		\$ 50.00	R	12/30/14	12/30/15
14-387	12/30/14	Edward Sankary	6412 Bentwood Lane	Fence		\$ 50.00	R	12/30/14	12/30/15
14-384	12/09/14	Illinois Industrial	600 Joliet Rd	Fire alarm	Illinois Industrial	\$ 100.00	C	12/09/14	12/09/15
14-377	12/02/14	Willowbrook PW	700 Willowbrook Center	I P Link install	Willowbrook PW		C	12/02/14	12/02/15
14-367	12/04/14	Oishi Sushi	6300 Kingery Hwy	Interior Buildout	Oishi Sushi	\$ 3,350.00	C	12/04/14	12/04/15
14-370	12/02/14	Midtronics	7000 Monroe	Lab Expansion	Midtronics	\$ 5,312.00	C	12/02/14	12/02/15
14-382	12/15/14	Mike Slurek	7501 Quincy	Overhead Door	ROC Inc.	\$ 450.00	C	12/15/14	12/15/15
	12/09/14	Lake Hinsdale Village	6340 Americana	Plan Review	Lake Hinsdale Village	\$ 2,000.00	R	12/09/14	12/09/15
	12/09/14	Lake Hinsdale Village	6340 Americana	Plan Review	Lake Hinsdale Village	\$ 2,000.00	R	12/09/14	12/09/15
	12/23/14	Lake Hinsdale Village	6340 Americana	Plan Review	Lake Hinsdale Village	\$ 2,000.00	R	12/23/14	12/23/15
14-374	12/02/14	Willowbrook Office	625 Plainfield Rd	Remodel	Willowbrook Office	\$ 300.00	C	12/02/14	12/02/15
14-376	12/02/14	Chishack	301 W. 75th Street	Restaurant Remodel	Chishack	\$ 3,641.30	C	12/02/14	12/02/15
14-393	12/23/14	Jennifer Adair	438 Ridgemoor Dr	Roof		\$ 35.00	R	12/23/14	12/23/15
14-394	12/23/14	Z. Kazimier	220 Somerset Road	Roof		\$ 35.00	R	12/23/14	12/23/15
14-362	12/23/14	A. Jara	6188 Pinewood	Roof		\$ 50.00	R	12/23/14	12/23/15
14-361	12/23/14	A. Jara	6119 Knollwood	Roof		\$ 50.00	R	12/23/14	12/23/15
14-368	12/15/14	Charlie Kwok	6300 Kingery	Sign	Oishi Sushi	\$ 410.00	C	12/15/14	12/15/15
14-372	12/18/14	Adam Cremieux	7580 Quincy Street	Swim Club	West Swim Club	\$ 31,318.56	C	12/18/14	12/18/15
14-380	12/02/14	Donna Proctor	6443 Clarendon Hills Rd	Water Heater		\$ 50.00	R	12/02/14	12/02/15
14-379	12/03/14	Dominic DeLeonardis	145 Windsor Lane	Water Heater		\$ 50.00	R	12/03/14	12/03/15
14-389	12/23/14	Jeff Carnicom	6425 Bentley Ave	Water Heater		\$ 50.00	R	12/23/14	12/23/15
14-397	12/23/14	S. Chimwala	6821 Caitlin	Water Heater		\$ 50.00	R	12/23/14	12/23/15
14-405	12/30/14	Oscar Garcia	7285 Willow Way Lane	Water Heater		\$ 50.00	R	12/30/14	12/30/15
14-386	12/15/14	Joseph Bogdan	601 Lake Hinsdale	Window Replacement		\$ 75.00	R	12/15/14	12/15/15
14-385	12/15/14	Eileen Pustera	56 Portwine Road	Window Replacement		\$ 75.00	R	12/15/14	12/15/15
14-404	12/30/14	Ilic Goran	6174 Knoll Lane	Window Replacement		\$ 75.00	R	12/30/14	12/30/15

VILLAGE OF WILLOWBROOK

PRCT. OF YR: 66.67

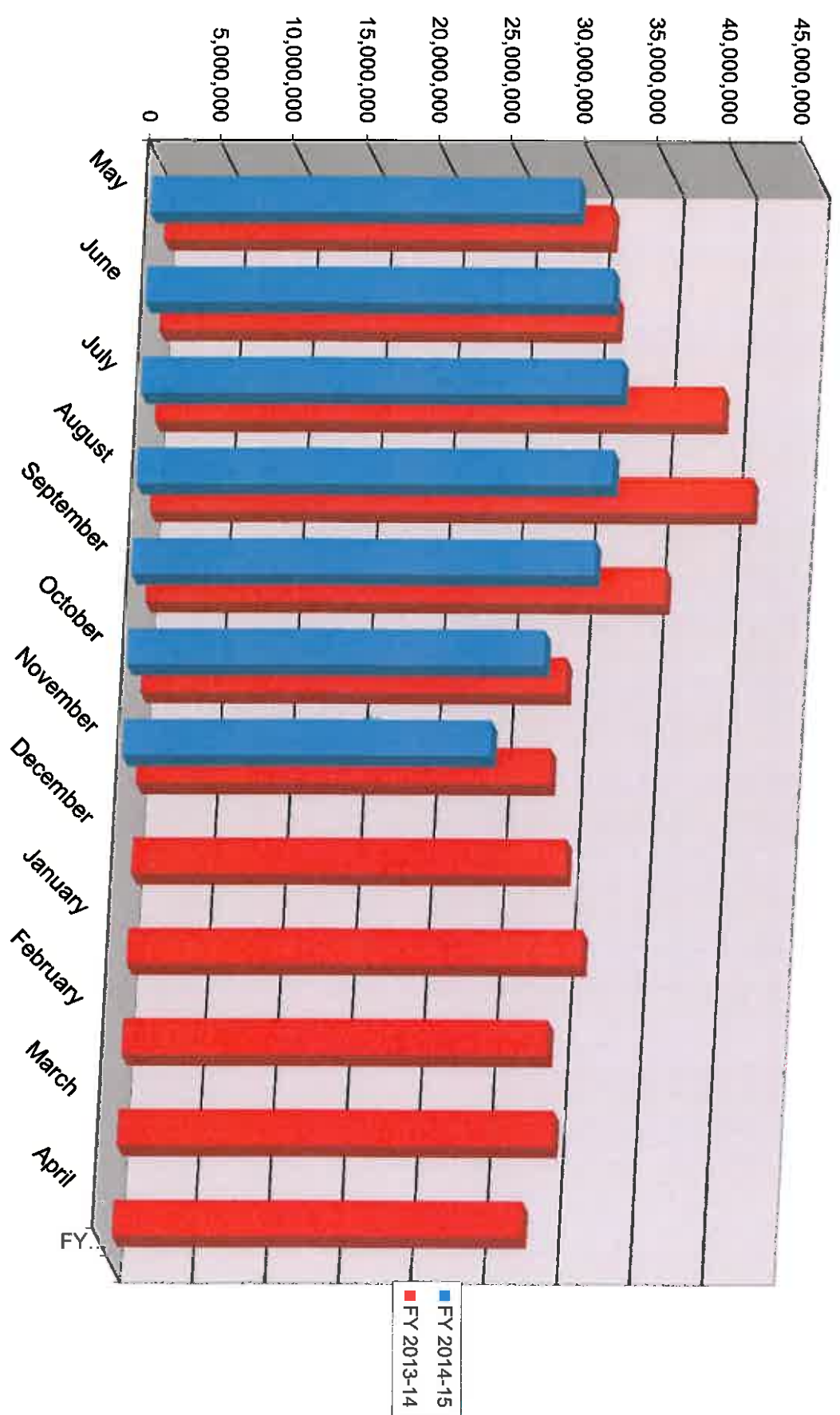
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REVENUE REPORT FOR DECEMBER, 2014

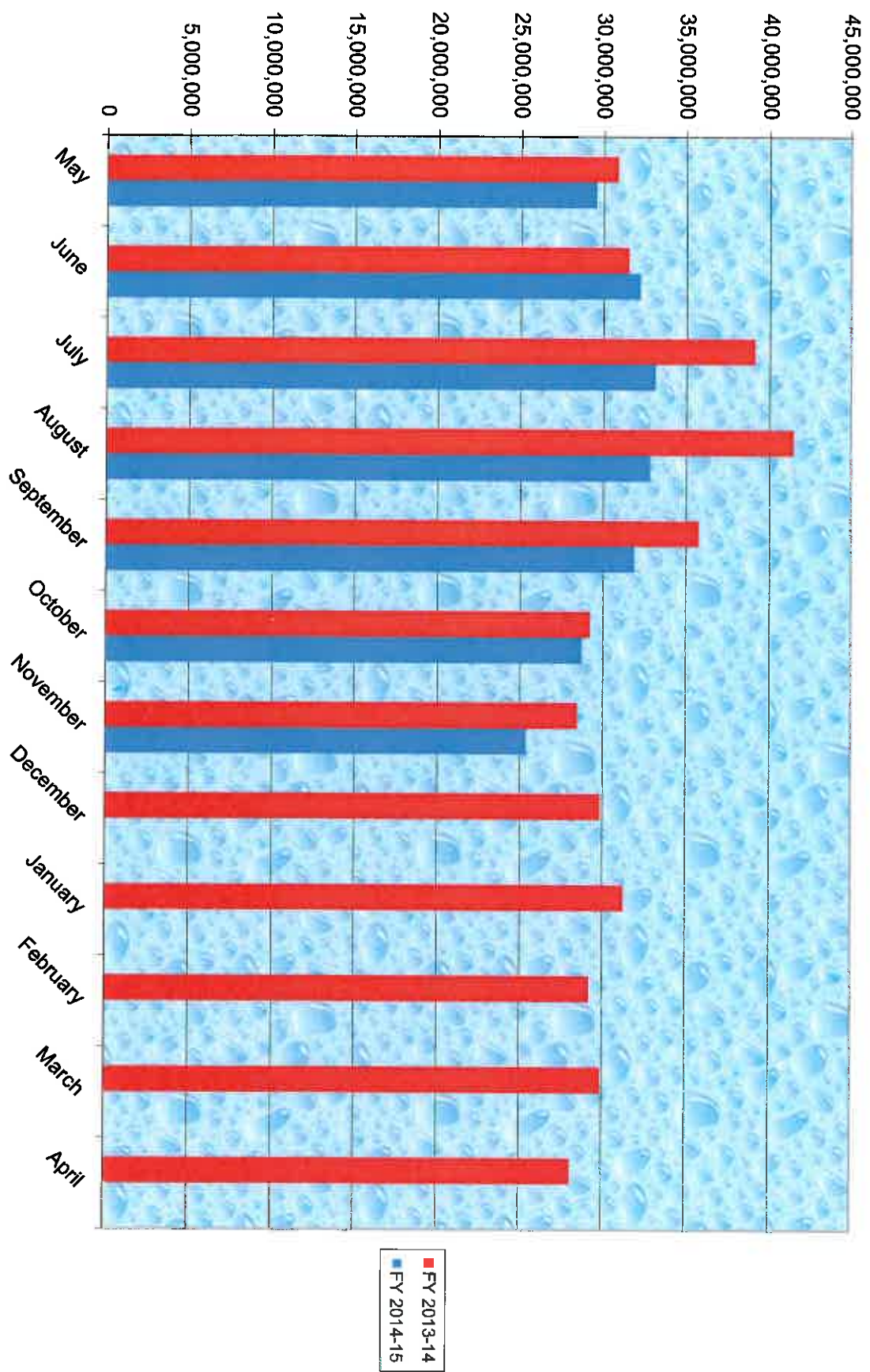
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ACCT. NO.	DESCRIPTION	RECEIVED THIS MONTH	RECEIVED THIS YEAR	BUDGET AMOUNT	PERCENT COLLECTED	BUDGET REMAINING
<u>GENERAL CORPORATE FUND</u>						
<u>Operating Revenue</u>						
<u>Property Taxes</u>						
01-310-101	PROPERTY TAX LEVY-SRA	972.18	71,823.00	71,135.00	100.97	-688.00
01-310-102	PROPERTY TAX LEVY-RD & BRIDGE	1,360.76	98,453.20	95,000.00	103.63	-3,453.20
01-310-103	PRIOR YEAR TAX COLL	0.00	0.00	0.00	0.00	0.00
*TOTAL	Property Taxes	2,332.94	170,276.20	166,135.00	102.49	-4,141.20
<u>Other Taxes</u>						
01-310-201	MUNICIPAL SALES TAX	287,859.90	2,460,715.42	3,450,000.00	71.33	989,284.58
01-310-202	ILLINOIS INCOME TAX	80,991.67	560,255.13	787,000.00	71.19	226,744.87
01-310-203	AMUSEMENT TAX	7,737.31	66,518.13	88,500.00	75.16	21,981.87
01-310-204	REPLACEMENT TAX	65.30	830.49	1,220.00	68.07	389.51
01-310-205	UTILITY TAX	75,955.67	658,566.64	1,075,000.00	61.26	416,433.36
01-310-207	TELECOMMUNICATION LEASE	0.00	1,224.50	34,380.00	3.56	33,155.50
01-310-208	PLACES OF EATING TAX	40,298.06	335,721.54	450,000.00	74.60	114,278.46
01-310-209	WATER TAX	13,940.76	99,735.21	174,013.00	57.31	74,277.79
01-310-210	WATER TAX - CLARENDON WATER CO	0.00	572.52	1,000.00	57.25	427.48
*TOTAL	Other Taxes	506,848.67	4,184,139.58	6,061,113.00	69.03	1,876,973.42
<u>Licenses</u>						
01-310-301	VEHICLE LICENSES	0.00	0.00	0.00	0.00	0.00
01-310-302	LIQUOR LICENSES	23,000.00	59,500.00	60,750.00	97.94	1,250.00
01-310-303	BUSINESS LICENSES	28,804.00	76,026.00	68,000.00	111.80	-8,026.00
01-310-305	VENDING MACHINE	500.00	2,270.00	2,000.00	113.50	-270.00
01-310-306	SCAVENGER LICENSES	4,000.00	8,250.00	6,000.00	137.50	-2,250.00
*TOTAL	Licenses	56,304.00	146,046.00	136,750.00	106.80	-9,296.00
<u>Permits</u>						
01-310-401	BUILDING PERMITS	52,874.78	182,835.54	175,000.00	104.48	-7,835.54
01-310-402	SIGN PERMITS	200.00	1,426.80	5,000.00	28.54	3,573.20
01-310-403	OTHER PERMITS	104.00	808.00	400.00	202.00	-408.00
01-310-404	COUNTY BMP FEE	0.00	2,655.00	0.00	0.00	-2,655.00
*TOTAL	Permits	53,178.78	187,725.34	180,400.00	104.06	-7,325.34
<u>Fines</u>						
01-310-501	CIRCUIT COURT FINES	6,396.34	91,329.12	120,000.00	76.11	28,670.88
01-310-502	TRAFFIC FINES	3,075.00	21,866.66	25,000.00	87.47	3,133.34
01-310-503	RED LIGHT FINES	48,647.02	458,322.02	540,000.00	84.87	81,677.98
*TOTAL	Fines	58,118.36	571,517.80	685,000.00	83.43	113,482.20

Monthly Pumpage Chart



Village of Willowbrook Pumpage Report



VILLAGE OF WILLOWBROOK - PUMPAGE REPORT
TOTAL GALLONS PUMPED
FY 2002/03 - FY 2014/15

Month	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
May	32,267,000	33,518,000	35,018,000	35,919,000	35,162,000	36,696,000	33,890,000	31,322,000	31,715,000	30,725,000	34,220,000	30,860,000	29,547,000
June	38,911,000	38,691,000	35,447,000	48,511,000	42,471,000	43,700,000	33,817,000	32,087,000	31,799,000	32,620,000	44,635,000	31,512,000	32,193,000
July	52,100,000	39,116,000	41,248,000	52,479,000	43,279,000	44,574,000	41,463,000	36,819,000	38,513,000	41,371,000	49,498,000	39,106,000	33,122,000
August	44,167,000	40,433,000	41,059,000	47,861,000	41,114,000	38,778,000	43,017,000	38,516,000	38,745,000	35,639,000	40,272,000	41,448,000	32,796,000
September	40,838,000	36,275,000	39,658,000	43,906,000	32,998,000	42,013,000	33,418,000	34,331,000	33,992,000	32,273,000	33,657,000	35,737,000	31,869,000
October	33,128,000	31,667,000	33,765,000	35,009,000	31,937,000	34,612,000	30,203,000	28,919,000	33,789,000	29,892,000	30,283,000	29,226,000	28,728,000
November	28,560,000	28,260,000	30,106,000	29,515,000	29,153,000	29,847,000	28,054,000	26,857,000	28,125,000	27,138,000	27,535,000	28,446,000	25,364,000
December	30,503,000	29,133,000	32,786,000	31,086,000	30,102,000	31,435,000	29,568,000	28,931,000	29,257,000	28,643,000	27,863,000	29,847,000	
January	30,343,000	29,602,000	31,223,000	29,411,000	30,340,000	32,444,000	29,383,000	28,123,000	28,401,000	28,846,000	28,427,000	31,265,000	
February	27,216,000	28,755,000	26,768,000	27,510,000	29,078,000	29,470,000	26,629,000	25,005,000	24,988,000	26,635,000	24,308,000	29,230,000	
March	29,488,000	30,315,000	30,025,000	29,905,000	30,362,000	31,094,000	28,408,000	27,945,000	27,909,000	28,911,000	27,862,000	29,917,000	
April	29,845,000	29,350,000	29,478,000	30,452,000	29,468,000	30,239,000	27,193,000	27,793,000	27,145,000	34,220,000	27,514,000	28,101,000	
TOTAL	417,366,000	395,115,000	406,581,000	441,564,000	405,464,000	424,902,000	385,043,000	366,648,000	374,378,000	376,913,000	396,074,000	384,695,000	213,619,000

YEAR TO DATE LAST YEAR (gallons):	236,335,000
YEAR TO DATE THIS YEAR (gallons):	213,619,000
DIFFERENCE (gallons):	-22,716,000

PERCENTAGE DIFFERENCE (+/-): -9.61%

FY14/15 PUMPAGE PROJECTION (gallons):	385,000,000
FY14/15 GALLONS PUMPED TO DATE:	213,619,000

CURRENT PERCENTAGE PUMPED
COMPARED TO PROJECTION 55.49%

All table figures are
in millions of
gallons sold on a
monthly basis per
fiscal year.