

Council Clerk's Executed Copy



**CONTRACT DOCUMENTS
AND
SPECIFICATIONS

FOR**

**Town Branch WWTP Primary Digester No. 2 Roof
Leak Repairs**

Bid Number 28-2025

**February 2025
Issued for Bid**

PREPARED BY:

**Lexington – Fayette Urban County Government
Division of Water Quality**



THEWALK-02

KWATSON

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
4/7/2025

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 have ADDITIONAL INSURED provisions or 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 Acrisure Southeast Partners Insurance Services, LLC 1317 Citizens Blvd Leesburg, FL 34748	CONTACT NAME: Kimberly Watson	
	PHONE (A/C, No, Ext): (859) 254-1836 FAX (A/C, No):	
	E-MAIL ADDRESS: kiwatson@acrisure.com	
INSURED W Principles LLC dba The Walker Company of Kentucky 200 Apperson Heights Suite 200 Mount Sterling, KY 40353	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: The Phoenix Insurance Company	25623
	INSURER B: Travelers Property Casualty Company of America	25674
	INSURER C: AGC Associated General Contractors of America Self Insurance Fu	
	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 INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:	X	X	DT-CO-8W294278-PHX-24	7/1/2024	7/1/2025	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
	PRODUCTS - COMP/OP AGG	\$ 2,000,000						
								\$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	810-8W293350-24-26-G	7/1/2024	7/1/2025	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP8W29698A-24-26	7/1/2024	7/1/2025	EACH OCCURRENCE	\$ 10,000,000
							AGGREGATE	\$ 10,000,000
								\$
								\$
								\$
C	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	023142	1/1/2025	1/1/2026	PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/>	
							E.L. EACH ACCIDENT	\$ 4,500,000
							E.L. DISEASE - EA EMPLOYEE	\$ 4,500,000
							E.L. DISEASE - POLICY LIMIT	\$ 4,500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Project: Town Branch WWTP Primary Digester Roof Repair. Lexington Fayette Urban County Government, is an additional insured with respect to general and auto liability per written contract, the general liability is primary and non-contributory and includes products and completed operations. Policies contain a 30 day notice of cancellation endorsement. Waiver of subrogation per written contract and as permitted by law regarding the coverage indicated above.

CERTIFICATE HOLDER

CANCELLATION


Lexington Fayette Urban County Government 200 East Main Street, Rm 338 Lexington, KY 40507	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 

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ADVERTISEMENT FOR BIDS

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ADVERTISEMENT FOR BIDS

1. INVITATION

Sealed proposals for the following work will be received by the Lexington-Fayette Urban County Government (LFUCG) via Ion Wave (<https://lexingtonky.ionwave.net>) until **2:00 pm**, local time, **March 28, 2025**, for furnishing all labor and/or materials and performing all work as set forth in the Contract Documents prepared by and for Lexington-Fayette Urban County Government, Division of Water Quality (OWNER). All forms and Contract Documents filled out and attached with bid submission may be viewed and downloaded via on Ion Wave. All notary requirements are waived for this solicitation. A copy of bid bond must be included with submission. Immediately following the scheduled closing time for reception of Bids, all proposals which have been submitted in accordance with the above will be opened electronically and a bid tab sheet will be posted on Ion Wave within approximately 30 mins.

LFUCG will only be accepting bids on-line through Ion Wave for this solicitation. Base bid and alternate totals (if required) should be provided on the appropriate line items tab on Ion Wave. Submissions without line-item totals (if required) may be rejected and deemed non-responsive.

2. DESCRIPTION OF WORK

The primary digester complex at Town Branch Wastewater Treatment Plant (TBWWTP) underwent a process upgrade between 2018 and 2020. Various equipment including digester covers and digester gas equipment were rehabilitated or replaced. The project also included roofing replacement.

During the upgrade the existing steel floating dual-deck cover on Digester No. 2 was demolished and replaced with a dual membrane gasholding cover. The dual membrane gasholding cover was specified in anticipation of future implementation of digester gas beneficial use. To facilitate installation of the membrane cover, a concrete mounting ring was formed and placed at the top of the inside tank wall of Primary Digester No. 2. The membrane cover mounted and anchored to the concrete mounting ring has inadvertently introduced a path for water intrusion into the digester control building adjacent to the tank wall. The improvements specified in this project address this water intrusion by modifying the concrete mounting ring and reflash the roofing/tank wall/digester control building interface. To facilitate this work, the membrane cover will need to be removed and later reinstalled.

In addition to the water intrusion due to the mounting ring, damage to through wall flashing where the lower digester control building roof abuts Digester No. 2 has led to additional water intrusion into the building. Masonry work and flashing replacement are required in this area.

The TBWWTP Primary Digester No. 2 Roof Leak Repairs includes labor, materials, tools, equipment, testing, and all other incidentals to complete the Work. Bidder shall subcontract with the membrane cover manufacturer, Evoqua Water Technologies (Evoqua), to remove and reinstall the cover. The ultimate delineation of tasks shall be coordinated between Evoqua and the Bidder to preserve Evoqua's membrane cover warranty coverage. While not intended to be all-inclusive, following is a list of required tasks with the anticipated responsible party in parentheses:

- A. Coordination with Owner to take Digester No. 2 out of service. (Bidder)
- B. Removal of cover membranes, restraint cables, mounting hardware, and associated hoses. Inventory of hardware and equipment to be stored by Owner for reuse. (Evoqua)
- C. Removal of lightning protection system, metal drip edge, and all other appurtenances interfering with access to the concrete mounting ring. (Bidder)
- D. Modifications to concrete mounting ring, roofing, and flashing and reinstallation of lightning protection system. (Bidder)
- E. Reinstallation of membrane cover with all associated equipment. Performance of pressure testing and membrane cover startup procedures. (Evoqua)
- F. Provide assistance to Owner with returning Digester No. 2 to service. (Evoqua and Bidder)
- G. Make masonry wall repairs at lower digester control building roof. (Bidder)

LFUCG staff will manage sludge with Primary Digesters No. 1 and 3 during the duration of the Work. Bidder shall work as expeditiously as possible to reduce the duration that Primary Digester No. 2 is out of service.

3. OBTAINING PLANS AND SPECIFICATIONS

Bid Documents shall be obtained electronically via Ion Wave.

4. METHOD OF RECEIVING BIDS

Bids will be received from prime contracting firms on a lump sum basis as outlined in the Form of Proposal. Bids shall be submitted in the manner and subject to the conditions as set forth and described in the Instruction to Bidders and Special Conditions.

Bids should be submitted online via Ion Wave.

5. METHOD OF AWARD

The Contract, if awarded, will be to the lowest, qualified, responsible bidder for the total project whose qualifications indicate the award will be in the best interest of the OWNER and whose bid/proposal complies with all the prescribed requirements. No Notice of Award will be given until the OWNER has concluded such investigation as deemed necessary to establish the responsibility, qualifications and financial ability of Bidders to do the work in accordance with the Contract Documents to the satisfaction of the OWNER within the time prescribed. The OWNER reserves the right to reject the Bid of any Bidder who does not pass such investigation to the OWNER's satisfaction. In analyzing Bids, the OWNER may take into consideration alternate and unit prices, if requested by the Bid forms.

6. BID WITHDRAWAL

No Bidder may withdraw his Bid for a period of sixty (60) calendar days after the closing date for receipt of Bids. Errors and omissions will not be cause for withdrawal of Bid without forfeit of Bid Bond. Bids may be withdrawn via Ion Wave prior to the closing date of receipt of bids.

7. BID SECURITY

Bid shall be accompanied by a certified check, cashier's check, or bid bond payable to the Lexington-Fayette Urban County Government in an amount not less than five percent (5%) of the base bid. Bid bond shall be executed by a Surety Company authorized to do business in the Commonwealth of Kentucky and countersigned by a licensed Kentucky Resident Agent, representing the Surety Company.

8. SUBMISSION OF BIDS

Bidders shall submit their Bids via Ion Wave not later than 2:00 p.m. (local time) **March 28, 2025**. Bids will remain sealed until 2:00 p.m. (local time) **March 28, 2025**, the official Bid closure time. Bids received after the scheduled closing time for receipt of Bids will not be considered.

9. RIGHT TO REJECT

The Procurement Agent for the LFUCG reserves the right to reject any and all bids and to waive all informalities and/or technicalities where the best interest of the LFUCG may be served.

10. NOTIFICATION TO THE LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT FOR AFFIRMATIVE ACTION PLAN AND CURRENT WORKFORCE

The successful Bidder must submit with their Bid the following items to the LFUCG:

1. Affirmative Action Plan for his/her firm.
2. Current Workforce Analysis Form.

Failure to submit these items as required herein may result in disqualification of the Bidder from the award of the contract.

All submissions should be directed to:

Lexington-Fayette Urban County Government
Division of Procurement
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507

11. NOTICE CONCERNING MINORITY, WOMEN, AND DISADVANTAGED BUSINESS ENTERPRISE (MWDBE) AND VETERAN-OWNED SMALL BUSINESS (VOSB) PARTICIPATION GOALS

This is a notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and MWDBE and VOSB participation in government contracts. LFUCG sets goals for involvement of Disadvantaged Business Enterprises (DBE), Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and Veteran-Owned Small Businesses (VOSB). All business enterprises in these categories are referred to as MWDBEs/VOSBs in these specifications.

LFUCG has set a combined minimum MBE and WBE participation goal of seventeen percent (17%) with minimum subgoals of five percent (5%) for MBEs and twelve percent (12%) for

WBEs. LFUCG also has a separate minimum three percent (3%) participation goal for VOSBs. LFUCG recommends that DBEs participate as applicable. The goals for the utilization of MWDBEs/VOSBs as subcontractors are recommended goals. Bidders who fail to meet these goals will be expected to provide written explanations to the Director of the Division of Procurement of efforts they have made to accomplish the recommended goal and the extent to which they are successful in accomplishing the recommended goals will be a consideration in the procurement process. Depending on the funding source, other MWDBE/VOSB goals may apply.

For assistance in locating MWDBEs/VOSBs, contact:

Sherita Miller, Minority Business Enterprise Liaison
Lexington-Fayette Urban County Government
Division of Procurement
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

12. PRE-BID MEETING, SITE VISITS, AND QUESTIONS

No official Pre-Bid meeting will be held. Bidders interested in visiting the site may schedule a site visit with Emily Epperson, Municipal Engineer Sr. at (859) 425-2596 or eepperson@lexingtonky.gov. TBWWTP is located at 301 Jimmie Campbell Drive, Lexington, KY 40504.

The last day for questions to be received from Bidders will be **March 13, 2025**, and the last day for Addenda to be issued will be **March 21, 2025**. All questions shall be submitted via Ion Wave.

END OF SECTION

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INFORMATION FOR BIDDERS

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PART II
INFORMATION FOR BIDDERS

1. RECEIPT AND OPENING OF BIDS

The LFUCG (herein called the OWNER) invites Bids from firms on the project described in the Advertisement for Bids. The OWNER will receive Bids online through Ion Wave (<https://lexingtonky.ionwave.net>) at the time and in the manner set forth in the Advertisement for Bids, at which time the Bids will be opened electronically. The OWNER may consider informal any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all Bids. Any Bid may be withdrawn prior to the scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. No Bidder may withdraw a Bid within sixty (60) days after the actual time and date of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

The OWNER assumes no responsibility for Bids that are not submitted electronically as indicated above. Bids that are not submitted in Ion Wave by the stated time and date will be rejected.

2. PREPARATION OF BID

Each Bid must be submitted on the prescribed digital Bid Form within Ion Wave. All blank spaces for the Bid prices must be filled in or the Bid will be considered incomplete.

3. SUBCONTRACTS

The Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the OWNER. All proposed subcontractors must be identified on the Form of Proposal. Prior to the award of Contract, the OWNER or the OWNER'S representative will advise the CONTRACTOR of the acceptance and approval thereof or of any action necessary to be taken. Should any Subcontractor be rejected by the OWNER, the CONTRACTOR shall present a new name and/or firm to the OWNER at no change in the Contract Price.

4. QUALIFICATION OF BIDDER

Corporate firms are required to be registered and in good standing with the requirements and provisions of the Office of the Secretary of State, Commonwealth of Kentucky.

Bidders submitting on this project shall be or shall team with a general contractor with at least 5 years of experience working at wastewater treatment plants. Bidders without this relevant experience on their team will not be considered qualified bidders.

Bidder shall demonstrate qualifications by providing:

- A fully complete Form of Proposal with all associated forms filled out to the satisfaction of Owner.

- A list of all current work in progress with information about the percent completion of each project and the total value of work for each project.
- A list of five completed projects with contact information for the owner that demonstrate relevant experience with treatment plant flow management and treatment plant equipment replacements.

If requested by Owner, Bidder shall provide/obtain:

- A current detailed financial statement for a period including up to 3 prior years.
- Financial security or insurance in amounts and kinds acceptable to the OWNER to meet the financial responsibility requirements for the Bidder to indemnify the OWNER.

The OWNER may make such investigations as the OWNER deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the OWNER that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein. Conditional Bids will not be accepted.

In evaluating Bids, OWNER shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternatives and unit prices, as requested. OWNER may consider maintenance requirements, performance data, and disruption or damage to private property. It is OWNER'S intent to accept alternatives, if requested by the bid forms, in the order in which they are listed in the Bid Form, but OWNER may accept or decline them in any order or combination. The contract, if awarded, will be awarded to the lowest, qualified, responsible Bidder based upon OWNER'S evaluation which indicates that the award will be in the best interest of OWNER and the general public.

In the event there is any question as to the Bidder's qualifications and ability to complete the work, a final determination will be made in accordance with a fair evaluation by the LFUCG of the above listed elements.

Each Bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any Bid.

5. BID SECURITY

- A. Each Bid must be accompanied by a Bid Bond prepared on a Form of Bid Bond and attached hereto, duly executed by the Bidder as principal and having as surety thereon a surety company approved by the OWNER, in the amount of 5% of the Bid. Such Bid Bond will be returned to the unsuccessful bidder(s) only upon written request to the Director of Procurement within seven (7) days of opening of Bids. Bid bond shall be made payable to the LFUCG. Bid security is not required for projects under \$50,000.

- B. Bonds shall be placed with an agent licensed in Kentucky with surety authorized to do business within the state. When the premium is paid for such coverage, the full commission payable shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.

6. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful Bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within ten (10) days after he has received notice of the acceptance of his Bid, shall forfeit to the OWNER, as liquidated damages for such failure or refusal, the security deposited with his Bid.

7. TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" from the OWNER and to fully complete the Project within the time as specified in the Contract. Bidder must agree also to pay liquidated damages for each consecutive calendar day thereafter as hereinafter provided in the General Conditions and Contract Agreement.

8. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site(s) to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider Federal, State and Local laws and regulations that may affect cost, progress, performance or furnishing of the work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors, or discrepancies in the Contract Documents.
- B. Bidders should examine the requirements of section 4 of the General Conditions for information pertaining to subsurface conditions, underground structures, underground facilities, and availability of lands, easements, and rights-of-way. The completeness of data, presented in the Contract Documents, pertaining to subsurface conditions, underground structures, and underground facilities for the purposes of bidding or construction is not assured. The Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface and subsurface) which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. On request in advance, OWNER will provide access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.
- C. The submission of a Bid will constitute an incontrovertible representation by the Bidder that Bidder has complied with every requirement of this paragraph 8; that without exception the Bid is premised upon furnishing and performing the Work

required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents; and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

9. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the Contract Documents will be made to any Bidder orally. Every request for such interpretation should be in writing addressed to the Director of Procurement, who in turn will have an Addendum issued for the LFUCG, and to be given consideration must be received prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications. Acknowledgement of the receipt of addenda must be included with all submitted bids. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

10. SECURITY FOR FAITHFUL PERFORMANCE

- A. Simultaneously with his delivery of the executed Contracts, the CONTRACTOR shall furnish a surety bond or bonds as security for the faithful performance of this Contract and for payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract, as specified in the General Conditions. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the OWNER and authorized to do business in the Commonwealth of Kentucky.
- B. All bonds required by this Contract and laws of this State shall be placed with agents licensed in the State of Kentucky. When the premium is paid for such coverage's, the full commission shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.
- C. **Contractor shall use standard Performance and Payment Bond forms such as documents provided with this contract book or AIA form A312-1984 (or later). Each document will be for 100% of the Contract Bid Amount.**

11. POWER OF ATTORNEY

Attorney-in-fact who signs Bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

12. TAXES AND WORKMEN'S COMPENSATION

The CONTRACTOR and subcontractor will be required to accept liability for payment of all payroll taxes, sales and use tax, and all other taxes or deductions required by local, state or federal law, such as old age pension, social security, or annuities measured by wages. Each shall carry Workmen's Compensation Insurance to the full amounts as required by Statutes and shall include the cost of all foregoing items in the proposal. The CONTRACTOR will not otherwise be reimbursed or compensated for such tax payments. The CONTRACTOR is urged to ascertain at his own risk his actual tax liability in connection with the execution or performance of his Contract.

13. LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the contract, the same as though herein written out in full.

14. EROSION AND SEDIMENT CONTROL AND PERMITS

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall also comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing, and Floodplain Encroachment Permits as described in Part 4 General Conditions Paragraph 5.17.

15. PREVAILING WAGE LAW AND MINIMUM HOURLY RATES

Federal or state wage rates and regulations, if required for this Project, will be as described in the Special Conditions.

16. AFFIRMATIVE ACTION PLAN

The successful Bidder must submit with their bid, the following items to the LFUCG:

1. Affirmative Action Plan of the firm
2. Current Work Force Analysis Form
3. Good Faith Effort Documentation
4. List of Disadvantaged Business Enterprise Subcontractors and the Dollar Value of each Subcontract

A Work Force Analysis Form shall be submitted for each Contract. Failure to submit these items as required herein may result in disqualification of the Bidder from award of the Contract.

All submissions should be directed to:

Director, Division of Procurement
Lexington-Fayette Urban County Government
200 East Main Street, Third Floor
Lexington, KY 40507

17. CONTRACT TIME

The number of calendar days within which the Work is to be substantially completed and ready for final payment (the Contract Time) is set forth in the Contract Agreement.

18. SUBSTITUTE OR "OR-EQUAL" ITEMS

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the CONTRACTOR if acceptable to the ENGINEER and OWNER, application for such acceptance will not be considered by the ENGINEER and OWNER until after the effective date of the Agreement. The procedure for submission of any such application by the CONTRACTOR and consideration by the ENGINEER and OWNER is set forth in the General Conditions.

19. ALTERNATE BIDS

Bidders shall submit alternate Bids/proposals only if and when such alternate bids/proposals have been specifically requested in an Invitation for Bids. If alternate Bids/proposals are requested in an Invitation for Bids, the form of submission of such alternate Bid and the conditions under which such alternate Bids will be considered for award of a contract will be established in the Invitation.

Any Bidder who submits a Bid incorporating an alternate proposal when alternate Bids/proposals have not been requested in the Invitation for Bids shall have his/her Bid rejected as non-responsive.

Any Bidder who submits a Bid incorporating two (2) or more prices for an item or groups of items (unless such method of pricing is requested in the Invitation for Bids), or which imposes conditions for acceptance other than those established in the Invitation for Bids, shall have their Bid rejected as non-responsive.

20. SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten (10) days thereafter, CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds, Certificate of Insurance, and Power of Attorney. The OWNER will deliver one fully signed counterpart to CONTRACTOR at such time as it has been signed by the Mayor.

21. ASSISTANCE TO BE OFFERED TO MINORITY, WOMEN, AND DISADVANTAGED BUSINESS ENTERPRISE (MWDBE) AND VETERAN-OWNED SMALL BUSINESS (VOSB) CONTRACTORS

A. Outreach for MWDBEs/VOSBs

LFUCG maintains a database of MWDBE/VOSB contractors and organizations. When a LFUCG construction project is advertised for bidding, notices are sent to companies registered at <https://lexingtonky.ionwave.net>. The notices describe the project and indicate the deadline for submitting bids.

Those wishing to be added to the LFUCG MWDBE/VOSB contractor database should contact:

Sherita Miller, Minority Business Enterprise Liaison
Division of Procurement
Lexington-Fayette Urban County Government
200 East Main Street, Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

B. Bid Bond Assistance for MWDBEs

For those MWDBE contractors who wish to Bid on a LFUCG project, Bid Bond assistance is available. This Bid Bond assistance is in the form of a "Letter of Certification" which is accepted by the LFUCG's Division of Procurement, in lieu of a Bid Bond. The "Letter of Certification" must be included in the Bid package when it is submitted to the Division of Procurement. The "Letter of Certification" will reference the specific project for which the Bid is being submitted, and the time and date on which the Bid is due. Bid bond assistance must be requested from the LFUCG's Division of Procurement.

C. Eligibility for Bid Bond Assistance for MWDBEs

In order to be eligible for any Bid bonding assistance, a MWDBE construction company must be owned or controlled at the level of 51% or more by a member or members of a minority group or females. Prior to receiving assistance, a statement providing evidence of ownership and control of the company by a member or members of a minority group or females must be signed by the Owner or corporate officer and by an attorney or accountant submitted to:

Sherita Miller, Minority Business Enterprise Liaison
Lexington-Fayette Urban County Government
Division of Procurement
200 East Main Street, Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

D. MWDBE and VOSB Subcontractors

The LFUCG will, upon request, assist prime contractors in the procurement of eligible MWDBE/VOSB subcontractors in an effort to achieve the 17% minimum MWDBE and 3% minimum VOSB participation goals.

For a list of eligible subcontractors, please contact:

Sherita Miller, Minority Business Enterprise Liaison
Lexington-Fayette Urban County Government
Division of Procurement
200 East Main Street, Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

PART III
FORM OF PROPOSAL

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PART III
Invitation to Bid No. 28-2025

Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs

1. FORM OF PROPOSAL

Place: Lexington, Kentucky

Date: March 28th, 2025

The following Form of Proposal shall be followed exactly in submitting a proposal for this Work.

This Proposal Submitted by W Principles, LLC
200 Apperson Heights, Mt. Sterling, KY 40357
(Name and Address of Bidding Contractor)

(Hereinafter called "Bidder"), organized and existing under the laws of the State of Kentucky, doing business as a Partnership "a corporation," "a partnership", or "an individual" as applicable.

To: Lexington-Fayette Urban County Government (LFUCG)
(Hereinafter called "OWNER")
Office of the Director of Procurement
200 East Main Street, 3rd Floor
Lexington, KY 40507

Gentlepeople:

The Bidder, in compliance with your Invitation for Bids for **Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs** having examined the Plans and Specifications with related documents, having examined the site for proposed Work, and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the lump sum and/or unit prices stated hereinafter. These prices are to cover all expenses incurred in performing the Work required under the Contract Documents, of which this proposal is a part.

BIDDER hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the project within the time provided in the Purchase Order or Work Orders issued by the OWNER. BIDDER further agrees to pay liquidated damages, the sum of \$400 for each consecutive calendar day thereafter.

The Bidder hereby acknowledges receipt of the following addenda:

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Addendum No. ____ Date _____

Insert above the number and the date of any Addendum issued and received. If none has been issued and received, the word "NONE" should be inserted.

2. LEGAL STATUS OF BIDDER

Bidder W Principles, LLC

Date March 27th, 2025

* 1. ~~A corporation duly organized and doing business under the laws of the State of _____, for whom _____, bearing the official title of _____, whose signature is affixed to this Bid/Proposal, is duly authorized to execute contracts.~~

* 2. A Partnership, all of the members of which, with addresses are: (Designate general partners as such)

Art Walker III }
Art Walker IV } 200 Apperson Heights, M. Sterling, KY 40353

* 3. ~~An individual, whose signature is affixed to this Bid/Proposal (please print name)~~

*(The Bidder shall fill out the appropriate form and strike out the other two.)

3.

BIDDERS AFFIDAVIT

Comes the Affiant, W Principles, LLC, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Art Walker IV and he/she is the individual submitting the bid or is the authorized representative of W Principles, LLC the entity submitting the bid (hereinafter referred to as "Bidder").
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Procurement to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as the "Ethics Act."
6. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Signature

President

Title

Art Walker IV

Printed Name

March 27th, 2025

Date

Company Name W Principles, LLC

Address 200 Apperson Heights Suite 200 Mt. Sterling, KY 40353

Subscribed and sworn to before me by Art Walker IV
(Affiant)

President
(Title)

of W Principles, LLC this 27th day of March
(Company Name)

Melissa Martin
Notary Public
[seal of notary]

My commission expires: June 13, 2026



4. **BID SCHEDULE**

The Bidder agrees to perform all the Work described in the Specifications and shown on the Plans for the following proposed lump sum price, which shall include the furnishing of all labor, materials, supplies, equipment and/or vehicle usage, services, all items of cost, overhead, taxes (federal, state, local), and profit for the Contractor and any Subcontractors involved, within the time set forth herein.

All pricing must be submitted correctly in Ion Wave to reflect the correct bid price. Contractors are responsible for correctly submitting pricing in Ion Wave. If the amount is entered incorrectly, the bid will be rejected.

The LFUCG's decision on the bid amount is final. The contract, if awarded, will be on the basis of materials and equipment specified in the specifications without consideration of possible substitute or "or equal" items.

LUMP SUM BID PRICE:

Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs =	SUBMIT IN ION WAVE ONLY
--	--

Submitted by:

W Principles, LLC.
Firm

200 Apperson Heights, Mt. Sterling, KY 40353
Address

↓

City, State & Zip

**Bid must be signed:
(original signature)**

 Project Manager
Signature of Authorized Company Representative – Title

Andrew Eberle
Representative's Name (Typed or Printed)

502-381-4677
Area Code – Phone – Extension

Fax #

aeberle@wprinciples.com
E-Mail Address

OFFICIAL ADDRESS:

200 Apperson Heights

Suite 200

Mt. Sterling, Ky 40353

(Seal if Bid is by Corporation)

By signing this form, you agree to ALL terms, conditions, and associated forms in this bid package.

5. **STATEMENT OF BIDDER'S QUALIFICATIONS**

The following statement of the Bidder's qualifications is required to be filled in, executed, and submitted with the Proposal:

1. Name of Bidder: W Principles, LLC
2. Permanent Place of Business: 200 Apperson Heights Suite 200 Mt. Sterling, KY 40353
3. When Organized: 1933
4. Where Incorporated: N/A.
5. Construction Plant and Equipment Available for this Project:

W Principles has a fleet of construction equipment, including dozers, excavators, articulated trucks, rollers, backhoes, skid steers, and telehandlers, all of which will be made readily available for this project (if needed).

(Attach Separate Sheet If Necessary)

6. Financial Condition:

If specifically requested by the OWNER, the apparent low Bidder is required to submit its latest three (3) years audited financial statements to the OWNER'S Division of Procurement within seven (7) calendar days following the bid opening.

7. In the event the Contract is awarded to the undersigned, surety bonds will be furnished by:

SiriusPoint America Insurance Company (Surety)

Signed: *See attached bid bond signature* (Representative of Surety)

8. The following is a list of similar projects performed by the Bidder: (Attach separate sheet if necessary).

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>
Marion WWTP	Marion, KY	\$15,000,000.00
Elkton WWTP Improvements	Elkton, KY	\$3,000,000.00
Town Branch RAS/WAS	Lexington, KY	\$3,000,000.00

9. The Bidder has now under contract and bonded the following projects:

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>
Town Branch Odor Project	Lexington, KY	\$2,000,000.00.

10. List Key Bidder Personnel who will work on this Project.

<u>NAME</u>	<u>POSITION DESCRIPTION</u>	<u>NO. OF YEARS WITH BIDDER</u>
David Parker	Site Superintendent	5
Andrew Eberle	Project Manager	4

11. DBE Participation on current bonded projects under contract:

<u>SUBCONTRACTORS</u> <u>(LIST)</u>	<u>PROJECT</u> <u>(SPECIFIC TYPE)</u>	<u>DBE</u>	<u>% of WORK</u>
N/A.	N/A.	N/A.	N/A.

(USE ADDITIONAL SHEETS IF NECESSARY)

6. LIST OF PROPOSED SUBCONTRACTORS

The following list of proposed subcontractors is required by the Owner to be executed, completed, and submitted with the Bidder's Form of Proposal. All subcontractors are subject to approval by the LFUCG. Failure to submit this completed list may be cause for rejection of Bid.

<u>BRANCH OF WORK -</u> <u>LIST EACH MAJOR</u> <u>ITEM</u>	<u>SUBCONTRACTOR</u>	<u>MWDBE/</u> <u>VOSB</u>	<u>% of</u> <u>Work</u>
Such as: Grading, bituminous paving, concrete, seeding and protection, etc.		<u>Yes/No</u>	
1. <u>Special Construction</u> <u>(Membrane)</u>	Name: <u>HP Thompson / Evogua</u> <u>8780</u> Address: <u>8030 Technology Dr Suite 102</u> <u>Fishers, IN 46038</u>	<u>NO</u>	
2. <u>Roof Repairs</u>	Name: <u>Kalkreuth Roofing</u> Address: <u>2131 Capstone Dr</u> <u>Lexington, KY 40353</u>	<u>NO</u>	
3. _____	Name: _____ Address: _____ _____		
4. _____	Name: _____ Address: _____ _____		
5. _____	Name: _____ Address: _____ _____		

(Attach additional sheet(s) if necessary.)

7. **LFUCG'S MINORITY, WOMEN, AND DISADVANTAGED BUSINESS ENTERPRISE (MWDBE) AND VETERAN-OWNED SMALL BUSINESS (VOSB) PARTICIPATION GOALS**

A. GENERAL

- 1) LFUCG requests all potential contractors to make a concerted effort to include MWDBEs and VOSBs as subcontractors or suppliers in their Bids. MWDBEs consist of Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and Disadvantaged Business Enterprises (DBE).
- 2) LFUCG has set a combined minimum MBE and WBE participation goal of seventeen percent (17%) with minimum subgoals of five percent (5%) for MBEs and twelve percent (12%) for WBEs. LFUCG recommends that DBEs participate as applicable. It is recommended that each Bidder make a good faith effort to meet this goal. Bidders shall comply with other MWDBE requirements as outlined in this section.
- 4) LFUCG has set a goal that not less than three percent (3%) of the total value of this Contract be subcontracted to VOSBs. It is recommended that each Bidder make a good faith effort to meet this goal. Bidders shall comply with other MWDBE requirements as outlined in this section.

B. PROCEDURES

- 1) The successful Bidder will be required to report to LFUCG the dollar amounts of all payments submitted to MWDBE/VOSB subcontractors and suppliers for work done or materials purchased for this Contract. Reporting requirements will be satisfied via LFUCG's Diverse Business Management Compliance System, <https://lexingtonky.diversitycompliance.com/> and/or as requested by the Division of Procurement.
- 2) Replacement of a MWDBE/VOSB subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of good faith efforts to replace the subcontractor/supplier with another MWDBE/VOSB firm. This replacement is subject to approval by LFUCG. (See LFUCG MWDBE Substitution Form)
- 3) For assistance in identifying qualified certified MWDBE/VOSB businesses to solicit for potential contracting opportunities, bidders may contact LFUCG Division of Procurement at 859-258-3320 or by emailing Sherita Miller, MBE Liaison at smiller@lexingtonky.gov.
- 4) LFUCG will make every effort to notify interested MWDBE/VOSB subcontractors and suppliers of bidding opportunities including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

C. DEFINITIONS

- 1) MWDBE and VOSB definitions can be found in the MBEP forms in this Form of Proposal.
- 5) Good faith efforts are efforts that, given all relevant circumstances, a bidder or proposer actively and aggressively seeking to meet the goals can reasonably be expected to make. In evaluating good faith efforts made toward achieving the goals, LFUCG will consider whether the bidder or proposer has performed the efforts outlined in the Obligations of Bidder for Good Faith Efforts detailed in this document. Other relevant factors will also be considered.

D. OBLIGATION OF BIDDER FOR GOOD FAITH EFFORTS

- 1) **Bidders shall make a good faith effort to achieve the participation goals for MWDBE/VOSB subcontractors and suppliers. Applicable good faith efforts are delineated in the MBEP forms in this Form of Proposal. Failure to meet the MWDBE/VOSB participation goals shall not necessarily be cause for disqualification of Bidders. Bidders not meeting the goal are required to furnish with their Bids written documentation of their good faith efforts to do so.**
- 2) Contract Award shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) The Form of Proposal includes a section entitled MWDBE Participation Form. The applicable information must be completed and submitted as outlined below.
- 4) **Failure to submit this information as requested may be cause for rejection of Bid or delay in Contract Award.**

E. DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS

All Bidders are required to submit with their Bid a completed MWDBE Participation Form, completed Attachment A – Small Business, MWDBE, and VOSB Outreach Plan, and a written statement documenting their good faith efforts. If Bid includes no MWDBE/VOSB participation, bidder shall enter “None” on the MWDBE Participation Form. Indicated forms and instructions for completion can be found in the MBEP section in this Form of Proposal.



LEXINGTON

MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller, MPA
Minority Business Enterprise Liaison
Division of Procurement
Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507
smiller@lexingtonky.gov
859-258-3323

OUR MISSION: The mission of the Minority Business Enterprise Program (MBEP) is to facilitate the participation of Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), Disadvantaged Business Enterprises (DBEs), Veteran-Owned Small Businesses (VOSBs), and Service-Disabled Veteran-Owned Small Businesses (SDVOSBs) in the procurement process and to promote economic inclusion as a business imperative essential to the long-term economic viability of the Lexington-Fayette Urban County Government (LFUCG). For clarity, the term Minority, Women, and Disadvantaged Business Enterprises (MWDBE) will be an all-encompassing term used to refer to MBEs, WBEs, and DBEs.

To that end the LFUCG adopted and implemented Resolution 272-2024 implementing a revised combined minimum MBE and WBE goal of seventeen percent (17%) for government contracts with minimum subgoals of five percent (5%) for MBEs and twelve percent (12%) for WBEs. There remains a minimum three percent (3%) goal for VOSBs for government contracts. LFUCG recommends that DBEs participate as applicable.

The resolution states the following definitions shall be used for the purposes of reaching these goals (a full copy is available in the Division of Procurement):

Certified Disadvantaged Business Enterprise (DBE) – a business in which at least fifty-one percent (51%) is owned, managed, and controlled by a person(s) who is socially and economically disadvantaged as defined by 49 CFR subpart 26.

Certified Minority Business Enterprise (MBE) – a business in which at least fifty-one percent (51%) is owned, managed, and controlled by an ethnic minority (i.e. Black American, Asian American, Hispanic American, Native American).

Certified Women Business Enterprise (WBE) – a business in which at least fifty-one percent (51%) is owned, managed, and controlled by a woman.

Certified Veteran-Owned Small Business (VOSB) – a business in which at least fifty-one percent (51%) is owned, managed, and controlled by a veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines, or Coast Guard.

Certified Service-Disabled Veteran-Owned Small Business (SDVOSB) – a business in which at least fifty-one percent (51%) is owned, managed, and controlled by a disabled veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines, or Coast Guard.

The term “Certified” shall mean the business is appropriately certified, licensed, verified, or validated by an organization or entity recognized by the Division of Procurement as having the appropriate credentials to make a determination as to the status of the business.

The following certifications are recognized and accepted by the MBEP:

Kentucky Transportation Cabinet (KYTC), Disadvantaged Business Enterprise (DBE)
Kentucky Minority and Women Business Enterprise (MWBE)
Women's Business Enterprise National Council (WBENC)
National Women Business Owners Corporation (NWBOC)
National Minority Supplier Development Council (NMSDC)
Tri-State Minority Supplier Development Council (TSMSSDC)
U.S. Small Business Administration Veteran Small Business Certification (VetCert)
Kentucky Service- Disabled Veteran Owned Small Business (SDVOSB)

To comply with Resolution 272-2024, prime contractors, MWDBEs, and VOSBs must complete monthly contract compliance audits in the Diverse Business Management Compliance system,
<https://lexingtonky.diversitycompliance.com/>.

A list of organizations that certify and/or maintain lists of certified MWDBEs and VOSBs is available upon request by emailing Sherita Miller at smiller@lexingtonky.gov.

**LEXINGTON****LFUCG MWDBE PARTICIPATION FORM**

Bid/RFP/Quote Reference # _____

The MWDBE and/or VOSB subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Procurement for approval immediately. **Failure to submit a completed form may cause rejection of the Bid.**

MWDBE or VOSB Company, Name, Address, Phone, Email	MBE, WBE, DBE, VOSB?	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. N/A				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE/VOSB firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

W Principles
Company

[Signature]
Company Representative

March 27th, 2025
Date

Project Manager
Title



LEXINGTON

LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # _____

The substituted MWDBE and/or VOSB subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Procurement for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project. **Note: Form required if a subcontractor is being substituted on a contract.**

SUBSTITUTED MWDBE/VOSB Company Name, Address, Phone, Email	MWDBE/VOSB Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1. N/A					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

W Principles, LLC
Company

March 27th, 2025
Date

[Signature]
Company Representative

Project Manager
Title



DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS AND OUTREACH PLANS

As affirmed in Resolution Number 272-2024, the LFUCG has adopted an annual aspirational goal of utilizing at least seventeen percent (17%) of public funds spent from certain discretionary agreements with certified MBEs and WBEs, utilizing at least three percent (3%) of public funds from certain discretionary agreements with certified VOSBs, and utilizing DBEs where applicable. Bidders should make every effort to achieve these goals.

Therefore, as an element of the responsiveness of the Bid, all Bidders are required to submit documentation of their good faith and outreach efforts to ensure all businesses, including small business and disadvantaged businesses such as MWDBEs and VOSBs have an equal opportunity to compete for and participate in the performance of any subcontracts resulting from this procurement. Examples of good faith and outreach efforts that satisfy this requirement to encourage the participation of MWDBEs and VOSBs include:

1. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting MWDBEs/VOSBs not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBEs/VOSBs to participate.
2. Attended LFUCG Procurement Economic Inclusion Outreach event(s) within the past year to meet small businesses, MWDBEs, and/or VOSBs to partner with on LFUCG contracts and procurements.
3. Attended pre-bid/pre-proposal meetings that were scheduled by LFUCG to inform small businesses, MWDBEs, and VOSBs of subcontracting opportunities.
4. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and small businesses, MWDBEs, and VOSBs.
5. Requested a list of certified small business, MWDBE, and VOSB subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
6. Contacted organizations that work with small businesses, MWDBEs, and VOSBs for assistance in finding certified MWDBEs and VOSBs to work on this project. Those contacted and their responses must be a part of the Bidder's outreach efforts documentation.
7. Sent written notices, by certified mail, email, or facsimile, to qualified, certified small businesses, MWDBEs, and VOSBs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
8. Followed up initial solicitations by contacting small businesses, MWDBEs, and VOSBs via tailored communications to determine their level of interest.
9. Provided the interested small businesses, MWDBEs, and VOSBs with adequate and timely information about the plans, specifications, and requirements of the contract.
10. Selected portions of the work to be performed by small businesses, MWDBEs, and VOSBs to increase the likelihood of subcontracting participation. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate small business, MWDBE, and VOSB participation, even when the prime contractor may otherwise perform these work items with its own workforce.

11. Negotiated in good faith with interested small businesses, MWDBEs, and VOSBs, not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection must be so noted in writing with a description as to why an agreement could not be reached.
12. Included documentation of quotations received from interested small businesses, MWDBEs, and VOSBs that were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a Bid.

Bidder must submit sound reasons why the quotations were considered unacceptable. The fact that the Bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a quote from a small business, MWDBE, or VOSB. Nothing in this provision shall be construed to require the Bidder to accept unreasonable quotes in order to satisfy the participation goals.
13. Made an effort to offer assistance to or refer interested small businesses, MWDBEs, and VOSBs to obtain the necessary equipment, supplies, materials, insurance, and/or bonding to satisfy the work requirements of the Bid proposal.
14. Made efforts to expand the search for small businesses, MWDBEs, and VOSBs beyond the usual geographic boundaries.
15. Other – any other evidence that the Bidder submits that may demonstrate that the Bidder has made reasonable efforts to include small business, MWDBE, and VOSB participation.

Bidder must document, with specificity, each of the efforts it made to include small businesses, MWDBEs, and VOSBs as subcontractors in the procurement, including the date on which each effort was made, the method via which each effort was made, and the outcome of each effort.

Note: Failure to submit the documentation requested in this section may be cause for rejection of Bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith and Outreach Efforts must be submitted with the Bid, regardless of the proposed level of small business, MWDBE, and VOSB participation in the procurement. If the Good Faith and Outreach Effort documentation is not submitted with the Bid response, the Bid may be rejected.

OUTREACH EFFORTS EVALUATION

Outreach efforts demonstrated by the Bidder or respondent will be evaluated on a pass/fail basis.

ATTACHMENT A – SMALL BUSINESS, MWDBE, and VOSB OUTREACH PLAN

Proposer Name: W Principles, LLC Date: March 27th, 2025
Project Name: TB MWDBE Primary Digest for Project Number: 28-2025
Contact Name: Andrew Eberle Telephone: 502-381-4677
Email: aeberle@wprinciples.com

The mission of the MBEP is to facilitate the full participation of MWDBEs and VOSBs in the procurement process and to promote economic inclusion as a business imperative essential to the long-term economic viability of LFUCG.

To that end, small businesses, MWDBEs, and VOSBs must have an equal opportunity to be utilized in the performance of contracts with public funds spent from certain discretionary agreements. By submitting its offer, Bidder/Proposer certifies that it has taken, and, if there are further opportunities, will take, reasonable steps to ensure that small businesses, MWDBEs, and VOSBs are provided an equal opportunity to compete for and participate in the performance of any subcontracts resulting from this procurement.

The information submitted in response to this clause will not be considered in any scored evaluation. Failure to submit this form may cause the Bid or proposal to be rejected.

Is the Bidder/ Proposer a certified firm? Yes ☐ No ☒

If yes, indicate all certification type(s):

DBE ☐ MBE ☐ WBE ☐ VOSB/SDVOSB ☐ small business ☐

and supply a copy of the certificate and/or certification letter if not currently listed on the city's MBEP certified list.

1. Include a list of firms that Bidder/ Proposer has had a contractual relationship with within the last two years that are small businesses, MWDBEs, and/or VOSBs, regardless of their certification status.

2. Does Bidder/Proposer foresee any subcontracting opportunities for this procurement?

Yes ☐ No ☒

If no, please explain why in the field below. Do not complete the rest of this form and submit this first page with your Bid and/or proposal.

If yes, please complete the following pages and submit all pages with your bid and/or proposal.

Describe the steps Bidder/Proposer took to solicit small businesses, MWDBEs, and/or VOSBs for subcontracting opportunities for this procurement.

3. Check the good faith and outreach efforts the Bidder/Proposer used to encourage the participation of small businesses, MWDBEs, and/or VOSBs:

- ☐ Bidder placed advertisements in search of prospective small businesses, MWDBEs, and/or VOSBs for the solicitation.
- ☐ Bidder attended LFUCG Procurement Economic Inclusion Outreach event(s) within the past year.
- ☐ Bidder attended pre-bid and/or pre-proposal meetings for this solicitation.
- ☐ Bidder sponsored an Economic Inclusion Outreach event.
- ☐ Bidder requested a list of small business and certified MWDBE and VOSB subcontractors or suppliers from LFUCG.
- ☐ Bidder contacted organizations that work with small businesses, MWDBEs, and/or VOSBs.
- ☐ Bidder sent written notices to small business and certified MWDBEs and VOSBs.
- ☐ Bidder followed up to initial solicitations with interested small businesses, MWDBEs, and/or VOSBs.
- ☐ Bidder provided small businesses, MWDBEs, and VOSBs interested in performing the solicited work with prompt access to the plans, specifications, scope of work, and requirements of the solicitation.
- ☐ Bidder made efforts to segment portions of the work to be performed by small businesses, MWDBEs, and VOSBs, including dividing sub-bid/partnership opportunities into economically feasible units/parcels to facilitate participation.
- ☐ Bidder negotiated in good faith with interested small businesses, MWDBEs, and/or VOSBs.
- ☐ Bidder provided adequate rationale for rejecting proposals from small businesses, MWDBEs, and/or VOSBs for lack of qualifications.
- ☐ Bidder offered assistance in obtaining bonding, insurance, financial, equipment, or other resources to small businesses, MWDBEs, and/or VOSBs in an effort to assist them in meeting project requirements.
- ☐ Bidder made efforts to expand the search for small businesses, MWDBEs, and/or VOSBs beyond the usual geographic boundaries.
- ☐ Bidder made other reasonable efforts to include small business, MWDBE, and/or VOSB participation.

4. Bidder/Proposer must include documentation, including the date each effort was made, the method via which each effort was made, and the outcome of each effort with this form, regardless of the level of small business, MWDBE, and/or VOSB participation. Examples of required documentation include copies of email communications, copies of newspaper advertisements, or copies of quotations received from interested small businesses, MWDBE, and/or VOSBs.

For detailed information regarding outreach efforts that satisfy the MBEP's requirements, please see "Documentation Required for Good Faith Efforts and Outreach Plans" page.

Note: The Bidder/Proposer must be willing to report the identity of each subcontractor and the value of each subcontract to MBEP if awarded a contract from this procurement.

Failure to submit the documentation requested may be cause for rejection of the Bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith and Outreach Efforts must be submitted with the Bid, regardless of the proposed level of small business, MWDBE, and VOSB participation in the procurement. If the Good Faith and Outreach Effort Form and associated documentation is not submitted with the Bid response, the Bid may be rejected.

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

W Principles, LLC
Company
March 27th, 2025
Date

[Signature]
Company Representative
Project Manager
Title

8. AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND CONFLICT OF INTEREST

I hereby swear (or affirm) under the penalty for false swearing:

1. That I am the Bidder (if the Bidder is an individual), a partner of the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);
2. That the attached Bid has been arrived at by the Bidder independently, and has been submitted without collusion with, and without any agreement, understanding, or planned common course of action, with any other contractor, vendor of materials, supplies, equipment, or services described in the Invitation to Bid, designed to limit independent bidding or competition;
3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished, with the Bid or Bids, and will not be communicated to any such person prior to the official opening of the Bid or Bids;
4. That the Bidder is legally entitled to enter into the contracts with the LFUCG, and is not in violation of any prohibited conflict of interest;
5. (Applicable to corporation only) That as a foreign corporation, we are registered with the Secretary of State, Commonwealth of Kentucky, and authorized to do business in the State _____ or, that as a domestic corporation, we are in good standing with the Secretary of State, Commonwealth of Kentucky _____. Check the statement applicable.
6. This offer is for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that, upon proper acceptance by the LFUCG of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
7. That I have fully informed myself regarding the accuracy of the statements made in this statement.
8. That I certify that subcontracts have not and will not be awarded to any firm(s) that have been debarred for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 As Amended, Executive Order 11246 As Amended or any other Federal Law.

9. **STATEMENT OF EXPERIENCE**

NAME OF INDIVIDUAL: Art Walker IV

POSITION/TITLE: President

STATEMENT OF EXPERIENCE: _____

Mr. Walker has been in the construction industry since 2009. Since joining the office in 2020, Mr. Walker has completed over 20 projects with a cumulative contractual value over \$50mm.

NAME OF INDIVIDUAL: Andrew Eberle

POSITION/TITLE: Project Manager

STATEMENT OF EXPERIENCE: _____

Mr. Eberle has been in the construction industry since 2017. Since joining the office in 2021, Mr. Eberle has completed over 10 projects with a cumulative contractual value over \$25mm.

NAME OF INDIVIDUAL: David Parker

POSITION/TITLE: Site Superintendent

STATEMENT OF EXPERIENCE: _____

Mr. Parker has been in the construction industry since 1990. Mr. Parker has completed over 50 projects in the WWTP / WTP industry with a cumulative contractual value over \$250mm.

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

Include all officers, office management, Affirmative Action officials, and field management personnel. (Attach separate sheets if necessary.)

10. EQUAL OPPORTUNITY AGREEMENT

Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

The Law

- * Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- * Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and subcontractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- * Section 503 of the Rehabilitation Act of 1973 States:
The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.
- * Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal Contracts.
- * Section 206 (A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors, and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is


the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractor may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped, and aged persons.


Signature


Name of Business

The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.

The Kentucky equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any count, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*
- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contract will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

KRS 45.610. Hiring minorities – Information required

- (1) *For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.*
- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*

KRS 45.620. Action against contractor – Hiring of minority contractor or subcontractor

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 – 45.640.*
- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions quoted above to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

11. **EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION POLICY**

It is the policy of W Principles, LLC

to assure that all applicants for employment and all employees are treated on a fair and equitable basis without regard to their race, religion, sex, color, handicap, natural origin or age.

Such action shall include employment, promotion, demotion, recruitment or recruitment advertising, layoff or termination, rates of pay and other forms of compensation, and selection for training, whether apprenticeship and/or on-the-job-training.

Furthermore, this company agrees to make special recruitment efforts to hire the protected class whenever feasible. This company also agrees to adhere to all applicable federal, state, and local laws relating to Equal Employment Opportunity for all individuals.

12. WORKFORCE ANALYSIS FORM

Name of Organization: W PRINCIPLES, LLC

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African- American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Administrators		5															
Professionals																	
Superintendents		10															
Supervisors		3															
Foremen		3															
Technicians																	
Protective Service																	
Para-Professionals																	
Office/Clerical																	
Skilled Craft		10															
Service/Maintenance																	
Total:		31															

Prepared by: W Principles, LLC

(Name and Title)

Date: 03 / 27 / 2025

Revised 2015-Dec-15

13. EVIDENCE OF INSURABILITY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT CONSTRUCTION PROJECT
(Use separate form for each Agency or Brokerage agreeing to provide coverage)

Names Insured: W Principles, LLC Employee ID: 84-3590572
Address: 200 Apperson Heights Suite 200 Mt. Sterling, KY 40353 Phone: (859) 498-0092

Project to be insured: Town Branch Dewatering Pump Station Improvements

In lieu of obtaining certificates of insurance at this time, the undersigned agrees to provide the above Named Insured with the minimum coverage listed below. These are outlined in the Insurance and Risk Management of Part V (Special Conditions), including all requirements, and conditions:

Section Items	Coverage	Minimum Limits and Policy Requirements	Limits Provided To Insured	Name of Insurer	A.M. Best's Code	Rating
SC-2 - see provisions	CGL	\$1,000,000 per occ. And \$2,000,000 aggregate	\$1mm per occurrence, \$2mm aggregate.	Phoenix Insurance	25623	A++
SC-2 - see provisions	AUTO	\$1,000,000/per occ.	\$ 1mm per occurrence	Travelers	25674	A++
SC-2 - see provisions	WC	Statutory w /endorsement as noted	\$ 4.5mm per occurrence	AGC	25674	A-
SC-2 - see provisions	EXC	\$2,000,000 per occ.	\$ 10mm per occurrence	Travelers	25674	A++

Section 2 includes required provisions, statements regarding insurance requirements, and the undersigned agrees to abide by all provisions for the coverage's checked above unless stated otherwise when submitting.

Acrisure Southeast

Art Walker IV

Agency or Brokerage
780 Winchester Road
Street Address
Lexington KY 40505
City State Zip
(859) 977-4878
Telephone Number
Name of Authorized Representative
President
Title
Art Walker IV
Authorized Signature
March 27th, 2025
Date

NOTE: Authorized signatures may be the agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of authorized representative of insurer.

IMPORTANT: Contract may not be awarded if a completed and signed copy of this form for all coverage's listed above is not provided with the bid.

14. DEBARRED FIRMS

PROJECT NAME: Town Branch Dewatering Pump Station Improvements

BID NUMBER: 172-2024

**LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KY**

All prime Contractors shall certify that Subcontractors have not and will not be awarded to any firms that has been debarred for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 As Amended, Executive Order 11246 As Amended or any other Federal Law.

All bidders shall complete the attached certification in duplicate and submit both copies to the Owner with the bid proposal. The Owner (grantee) shall transmit one copy to the Lexington-Fayette Urban County Government, Division of Community Development, within fourteen (14) days after bid opening.

The undersigned hereby certifies that the firm of W Principles, LLC has not and will not award a subcontract, in connection with any contract award to it as the result of this bid, to any firm that has been debarred for noncompliance with the Federal labor Standards, Title VI of the civil Rights Act of 1964, Executive Order 11246 as amended or any Federal Law.

W Principles, LLC

Name of Firm Submitting Bid



Signature of Authorized Official

President

Title

March 27th, 2025

Date

15. DEBARMENT CERTIFICATION

All contractors/subcontractors shall complete the following certification and submit it with the bid proposal.

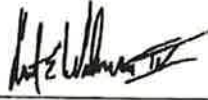
The contractor/subcontractor certifies in accordance with Executive Order 12549 (Debarment and Suspension 2/18/86) that to the best of its knowledge and belief, that it and its principals:

- 1) Are not presently debarred, suspended, proposed for debarment, declared negligible, or voluntarily excluded from covered transactions or contract by any Federal department or agency for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 as amended, Executive Order 11246 as amended or any other Federal law;
 - a) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - b) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(a) of this certification; and
 - c) Have not within a three year period preceding this bid has one or more public (Federal, State or local) transactions or contracts terminated for cause or default.
- 2) Where the contractor is unable to certify to any of the statements in this certification, such prospective contractors shall attach an explanation to this certification form.

Firm Name: W Principles, LLC

Project: Town Branch Dewatering Pump Station Improvements

Printed Name and Title of Authorized Representative: Art Walker IV - President

Signature: 

Date: March 27th, 2025

END OF SECTION

AIA Document A310™ – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

W Principles, LLC d/b/a The Walker Company of Kentucky
200 Apperson Heights, Suite 200
Mt. Sterling, KY 40353

SURETY:

(Name, legal status and principal place of business)

SiriusPoint America Insurance Company
A NY Corporation
1 World Trade Center, 285 Fulton Street
47th Floor Suite 47J
New York, NY 10007

OWNER:

(Name, legal status and address)

Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507

BOND AMOUNT: \$ Five Percent of Amount Bid (5%)

PROJECT:

(Name, location or address, and Project number, if any)

Town Branch WWTP Primary Digester Repairs
Lexington, KY

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such

Int.

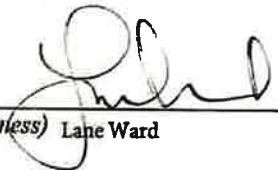
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User Notes:

(3B9ADA20)

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.

Signed and sealed this 26th day of March , 2025.

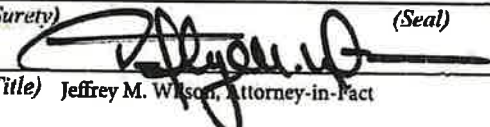

(Witness)


(Witness) Lane Ward

W Principles, LLC d/b/a The Walker Company of Kentucky

(Contractor as Principal) (Seal)
 - PRESIDENT
(Title)

SiriusPoint America Insurance Company

(Surety) (Seal)

(Title) Jeffrey M. Wilson, Attorney-in-Fact

Certification of Document's Authenticity
AIA® Document D401™ – 2003

I, Jeffrey M. Wilson, Attorney-in-Fact, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with this certification 11:21:23 CT on 03/26/2025 under Order No. 4104251021 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A310™ - 2010, Bid Bond, other than changes shown in the attached final document by underscoring added text and striking over deleted text.


(Signed)

Jeffrey M. Wilson, Attorney-in-Fact
(Title)

March 26, 2025
(Dated)

**POWER OF ATTORNEY
SIRIUSPOINT AMERICA INSURANCE COMPANY
NEW YORK**

KNOW ALL MEN BY THESE PRESENTS: That SiriusPoint America Insurance Company, a New York corporation, having its principal office in the City of New York, pursuant to the following Resolution, which was adopted by the Board of Directors of the Company, to wit:

RESOLVED, that the President, Senior Vice President, Chief Financial Officer, Secretary or Assistant Secretary is hereby authorized to execute Powers of Attorney appointing as attorneys-in-fact selected employees of certain surety companies who shall have the power for and on behalf of the Company to execute and affix the seal of the Company to surety contracts as co-surety.

Does hereby nominate, constitute and appoint:

William M. Smith, Robert R. Freel, Richard H. Mitchell, Mark W. Edwards, II, Jeffrey M. Wilson, Anna Childress, Alisa B. Ferris

Its true and lawful attorney-in-fact, to make, execute, seal and deliver for and on its behalf, and as its act and deed; any and all bonds, contracts, agreements of indemnity, and other undertakings in suretyship (NOT INCLUDING bonds without a fixed penalty or financial guarantee bonds) and to bind the Company thereby as fully and to the same extent as if same were signed by the duly authorized officers of the Company, provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

\$50,000,000 single bond limit

All acts of said attorneys-in-fact pursuant to the authorities herein given are hereby ratified and confirmed. The executive officers listed above in the Resolution may from time to time and at any time remove any such appointee and revoke the power given to him or her.

The execution of such bonds or undertakings in pursuance of these presents, within one year of the date of issue of these presents, shall be binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in New York, New York, in their own proper persons.

IN WITNESS WHEREOF, SiriusPoint America Insurance Company has caused its corporate seal to be hereunto affixed, and these presents to be signed by its Secretary this 17th day of August in the year 2023.

SiriusPoint America Insurance Company

By: 

Melissa J. Ralph
Secretary

State of New Jersey }

} ss.

County of Monmouth }

On this 17th day of August 2023, before me, a Notary Public of the State of New Jersey in and for the County of Monmouth duly commissioned and qualified, came Melissa J. Ralph, Secretary, of SiriusPoint America Insurance Company, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and acknowledged the execution of the same, and, being by me duly sworn, depose and saith, that she is the officer of the Company aforesaid, and that the seal affixed to the preceding instrument as the corporate seal of said Company, and the said corporate seal and her signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal.



State of New Jersey
County of Monmouth


Notary Public
My Commission expires
March 31, 2028

I, Melissa J. Ralph, Secretary, of SiriusPoint America Insurance Company, a New York corporation, do hereby certify that the above and foregoing is a full, true correct copy of Power of Attorney, is still in force and effect and has not been revoked

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company this 26 day of, March, 2025




Melissa J. Ralph
Secretary

PART IV
GENERAL CONDITIONS
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PART IV
GENERAL CONDITIONS

1. DEFINITIONS

Wherever used in these General Conditions or the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

1.1 Addenda

Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bid Documents or the Contract Documents.

1.2 Agreement

The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3 Application for Payment

The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

1.4 Bid

The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.5 Bidder

An individual, partnership, or corporation, who submit a Bid for a prime contract with the OWNER, for the Work described in the proposed Contract Documents.

1.6 Bonds

Bid, performance and payment bonds and other instruments of security.

1.7 Calendar Day

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

1.8 Change Order

A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

1.9 Contract Documents

The Advertisement for Bidders, Information for Bidders, Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Special Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all amendments, modifications and supplements.

1.10 Contract Unit Price

The monies payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement. Unit Prices are to be firm for the term of this Contract.

1.11 Contract Time

The number of consecutive calendar days between the date of issuance of the Notice to Proceed and the contract completion date.

1.12 CONTRACTOR

The person, firm or corporation with whom OWNER has entered into the Agreement.

1.13 Defective

An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER'S recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER).

1.14 Drawings

The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

1.15 Effective Date of the Agreement

The date indicated in the Agreement on which it becomes effective.

1.16 ENGINEER

The Lexington-Fayette Urban County Government (LFUCG) Division of Water Quality or its authorized representative.

1.17 Field Order

A documented order issued by ENGINEER which orders minor changes in the Work, but which does not involve a change in the Contract Price or the Contract Time.

1.18 Giving Notice

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

1.19 Laws and Regulations

Laws, rules, regulations, ordinances, codes and/or orders.

1.20 Notice of Award

The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.21 Notice to Proceed

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

1.22 OWNER

The Lexington-Fayette Urban County Government (LFUCG).

1.23 Partial Utilization

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

1.24 Project

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

1.25 Inspector

The authorized representative of the ENGINEER who is assigned to the site or any part thereof.

1.26 Shop Drawings

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

1.27 Specifications

Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and

workmanship as applied to the Work and certain administrative details applicable thereto.

1.28 Standard Specifications

The "Standard Specifications for Road and Bridge Construction", Transportation Cabinet, Department of Highways, Commonwealth of Kentucky, current edition. MUTCD shall refer to the "Manual of Uniform Traffic Control Devices."

1.29 Subcontractor

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

1.30 Special Conditions

The part of the Contract Documents which amends or supplements these General Conditions.

1.31 Supplier

A manufacturer, fabricator, supplier, distributor, materialman or vendor.

1.32 Underground Facilities

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

1.33 Unit Price Work

Not applicable

1.34 Work

The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

1.35 Time Period

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.

2. PRELIMINARY MATTERS

2.1 Delivery of Bonds

When the CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER, such Bonds, Insurance Certificate, and Power of Attorney as CONTRACTOR may be required to furnish.

2.2 Copies of Documents

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

2.3 Commencement of Contract Time; Notice to Proceed

The Contract Time will commence to run on the day specified in the Notice to Proceed.

2.4 Starting the Project

CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

2.5 Before Starting Construction

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

2.6 Submittal of Schedules

Within ten days after the effective date of the Agreement (unless otherwise specified) CONTRACTOR shall submit to ENGINEER for review:

2.6.1 an estimated progress schedule indicating the starting and completion dates of the various stages of the Work;

2.6.2 a preliminary schedule of Shop Drawing submissions; and

2.6.3 a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an

appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission.

2.7 Preconstruction Conference

Before CONTRACTOR starts the Work at the proposed site, a conference attended by CONTRACTOR, ENGINEER, EEO-Affirmative Action Officer, and other appropriate parties will be held to discuss the following issues: (1) The scheduling of the Work to be completed; (2) The procedures for handling shop drawings and other submittals; (3) The processing of applications for payment; (4) The establishment of an understanding among the involved parties in regard to the proposed project; and (5) The establishment of procedures for effectively implementing the LFUCG's 10% minimum DBE goals.

2.8 Finalizing Schedules

At least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 2.6. The finalized progress schedule will be acceptable to ENGINEER as providing orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on ENGINEER responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereof. The finalized schedule of Shop Drawing submissions will be acceptable to ENGINEER as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to ENGINEER as to form and substance.

3. CONTRACT DOCUMENTS: INTENT, CONFLICTS, AMENDING AND REUSE

3.1 General

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

3.2 Intent

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall

mean the latest 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. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any of ENGINEER'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 8.4.

3.3 Conflicts

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

In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order:

1. Agreement
2. Field and Change Orders
3. Addenda
4. Special Conditions
5. Instruction to Bidders
6. General Conditions
7. Specifications
8. Drawings

Figure dimension on drawings shall govern over scale dimensions and detailed Drawings shall govern over general Drawings.

3.4 Amending and Supplementing Contract Documents

The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof by means of a Change Order or a Field Order. Contract Price and Contract Time may only be changed by a Change Order.

3.5 Reuse of Documents

Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect

contract with OWNER shall 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; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

4. AVAILABILITY OF LANDS; PHYSICAL CONDITIONS, REFERENCE POINTS

4.1 Availability of Lands

OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER'S furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim therefore as provided in Article 11. ENGINEER shall determine if the claim is legitimate or not. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.2 Physical Conditions

4.2.1 Explorations and Reports

Reference is made to the Special Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.

4.2.2 Existing Structures

Reference is made to the Special Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities referred to in paragraph 4.3) which are at or contiguous to the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, but not for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

4.2.3 Report of Differing Conditions

If CONTRACTOR believes that:

4.2.3.1 any technical data on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is inaccurate, or

4.2.3.2 any physical conditions uncovered or revealed at the site differ materially from that indicated, reflected or referred to in the Contract Documents,

CONTRACTOR shall, promptly after becoming aware thereof and before performing any WORK in connection therewith (except in an emergency) notify OWNER and ENGINEER in writing about the inaccuracy or difference.

4.2.4 ENGINEER'S Review

Engineer will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise CONTRACTOR of ENGINEER'S findings and conclusions.

4.2.5 Possible Document Change

If ENGINEER concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Change Order will be issued as provided in Article 10 to reflect and document the consequences of the inaccuracy or difference.

4.2.6 Possible Price and Time Adjustments

In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such inaccuracy or difference.

4.3 Physical Conditions-Underground Facilities

4.3.1 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 or by others. Unless it is otherwise expressly provided in the Special Conditions:

4.3.1.1 OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and,

4.2.1.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data; for locating all underground facilities shown or indicated in the Contract Documents; for coordination of the Work with the owners of such underground facilities during construction;

and for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

4.3.2 Not Shown or Indicated

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

4.4 Reference Points

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 (unless otherwise specified), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point 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 by a Registered Land Surveyor.

5. CONTRACTOR'S RESPONSIBILITIES

5.1 Supervision

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall assure that all CONTRACTOR personnel (including subcontractors, etc.) conduct themselves in a courteous and respectful manner toward the ENGINEER and the general public. Failure to comply with this condition of the Contract will result in immediate suspension of the Work. Following a review by the Commissioner of Public Works, the Contract may be terminated (see GC section 14). CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not

be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

5.2 Superintendence

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

5.3 Labor

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. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER'S written consent given after prior written notice to ENGINEER.

5.4 Start-Up and Completion of Work

Unless otherwise specified, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the Contract Documents.

5.5 Materials and Equipment

All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to ENGINEER, or any of ENGINEER'S consultants, agents or employees,

any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

5.5.1 Not Clearly Specified or Indicated

In all instances where materials specified are obtainable in different sizes, weights, trade grades, qualities or finishes, etc., whose weights, trade grades, qualities or finishes, etc., are not clearly specified or indicated on the Drawings, the CONTRACTOR shall notify the ENGINEER of all such instances at least five (5) days in advance of receiving the proposals. The Engineer will then determine which size, weight, trade grade, quality, finish, etc., is required.

5.5.2 Coordination of Work

The CONTRACTOR shall see that for his own Work and for the work of each subcontractor, proper templates and patterns necessary for the coordination of the various parts of the Work are prepared. The CONTRACTOR shall furnish or require the Subcontractor to furnish such duplicates as will enable the Subcontractors to fit together and execute fully their respective portions of the Work.

5.6 Adjusting Progress Schedule

CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.8) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the Contract Documents applicable thereto.

5.7 Substitutes or “Or-Equal” Items

5.7.1 General

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by OWNER/ENGINEER if sufficient information is submitted by CONTRACTOR to allow OWNER/ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by OWNER/ENGINEER will include the following. Requests for review of substitute items of material and equipment will not be accepted by OWNER/ENGINEER from anyone, other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to OWNER/ENGINEER for acceptance thereof, certifying that the proposed

substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR'S achievement of completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by OWNER/ENGINEER in evaluating the proposed substitute. OWNER/ENGINEER may require CONTRACTOR to furnish at CONTRACTOR'S expense additional data about the proposed substitute.

5.7.2 Substitutes

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to OWNER/ENGINEER, if CONTRACTOR submits sufficient information to allow OWNER/ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by OWNER/ENGINEER will be similar to that provided in paragraph 5.7.1 as applied by OWNER/ENGINEER.

5.7.3 OWNER/ENGINEER'S Approval

OWNER/ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. OWNER/ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without OWNER/ENGINEER'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute. OWNER/ENGINEER will record time required by OWNER/ENGINEER and OWNER/ENGINEER'S consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not OWNER/ENGINEER accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the charges of OWNER/ENGINEER and

OWNER/ENGINEER'S consultants for evaluating each proposed substitute.

5.8 Subcontractors, Suppliers, and Others

5.8.1 Acceptable to ENGINEER

CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 5.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

5.8.2 Objection After Due Investigation

If the Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER and if CONTRACTOR has submitted a list thereof, OWNER'S or ENGINEER'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 person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

5.8.3 Contractor Responsible for Acts of Subcontractors

The CONTRACTOR shall perform on the site, and with its own organization, work equivalent to at least fifty (50) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the Urban County Engineer determines that the reduction would be to the advantage of the Urban County Government.

The CONTRACTOR shall, at the time he submits his proposal for the Contract, notify the OWNER in writing of the names of Subcontractors proposed for the Work. He shall not employ any Subcontractor without the prior written approval of the OWNER.

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

5.8.4 Division of Specifications

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.

5.8.5 Agreement Between Contractor and Subcontractors

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

5.8.6 Statements and Comments by CONTRACTOR

Neither the CONTRACTOR, his employees nor his subcontractors shall at any time make any statement or comment as to the project scope, nature, intention, design or construction method to any third party or parties without the explicit written consent of the OWNER.

Any third party requesting such information shall be referred to the OWNER or his representative.

Should there be any change from the original intent of the project as a result of any statement or comment by the CONTRACTOR, his employees or subcontractors, CONTRACTOR shall be held liable for any change in the scope, nature, design, or construction method and shall bear the full cost for the previously mentioned changes.

5.9 Patent Fees and Royalties

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.

5.10 Permits

Unless otherwise provided in the Special 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. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

5.11 Laws and Regulations

5.11.1 CONTRACTOR to Comply

CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR'S compliance with any Laws and Regulations.

5.11.2 Specifications and Drawings at Variance

If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws, or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR'S primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

5.12 Taxes

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work. Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the LFUCG at the time the proposal is submitted and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

5.13 Use of Premises

5.13.1 Project Site

CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the staging areas or work site areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or ENGINEER by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and ENGINEER harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR'S performance of the Work.

5.13.2 Clean Up

During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

5.13.1 Loading of Structures

CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

5.14 Record Drawings

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders and written

interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to ENGINEER for OWNER.

5.15 Shop Drawings and Samples

5.15.1 Shop Drawing Submittals

After checking and verifying all field measurements and after complying with applicable procedures specified, CONTRACTOR shall submit to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.8), or for other appropriate action if so indicated in the Special Conditions, electronic pdf versions (unless otherwise specified) of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable ENGINEER to review the information as required.

5.15.2 Sample Submittals

CONTRACTOR shall also submit to ENGINEER for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

5.15.3 Review by CONTRACTOR

Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

5.15.4 Notice of Variation

At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in

addition, shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and approval of each such variation.

5.15.5 ENGINEER'S Approval

ENGINEER will review and approve with reasonable promptness Shop Drawings and samples, but ENGINEER'S review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required 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. CONTRACTOR shall make corrections required by ENGINEER and shall resubmit electronic pdf (unless otherwise specified) 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.

5.15.6 Responsibility for Errors and Omissions

ENGINEER'S review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER'S attention to each such variation at the time of submission as required by paragraph 5.15.4 and ENGINEER has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 5.15.3.

5.15.7 Cost of Related Work

Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to ENGINEER'S review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

5.16 Continuing the Work

CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolutions of any disputes or disagreements, except as permitted by paragraph 14.5 or as CONTRACTOR and OWNER may otherwise agree in writing.

5.17 Erosion and Sediment Control

5.17.1 General Environmental Requirements

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall comply with all applicable federal, state and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing and Floodplain Encroachment Permits.

Any fines or penalties resulting from the failure to comply with the terms of the federal, state or local permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

5.17.2 Stormwater Pollution Prevention

A. The CONTRACTOR shall exercise due care to prevent or minimize any damage to any stream or wetland from pollution by debris, sediment or other material. The operation of equipment and/or materials in a jurisdictional wetland is expressly prohibited. Water that has been used for washing or processing, or that contains oils, sediments or other pollutants shall not be discharged from the job site. Such waters shall be collected and properly disposed of by the CONTRACTOR in accordance with applicable local, state and federal law.

B. The CONTRACTOR is solely responsible for securing all required state and local permits associated with stormwater discharges from the project including, but not necessarily limited to the KY Notice of Intent to Disturb (NOI) for Coverage of Storm Water Discharges Associated with Construction Activities under the KPDES Storm Water General Permit KYR100000 and the LFUCG Land Disturbance Permit. Permit application preparation and all required documentation are the responsibility of the CONTRACTOR. The CONTRACTOR is solely responsible for maintaining compliance with the stormwater pollution prevention plan or erosion and sediment control plan and ensuring the following:

- a. That the Stormwater Pollution Prevention Plan (SWPPP) or erosion control plan is current and available for review on site;
- b. That any and all stormwater inspection reports required by the permit are conducted by qualified personnel and are available for review onsite; and
- c. That all best management practices (BMPs) are adequately maintained and effective at controlling erosion and preventing sediment from leaving the site.

C. The CONTRACTOR shall provide the necessary equipment and personnel to perform any and all emergency measures that may be required to contain any spillage or leakage and to remove materials, soils

or liquids that become contaminated. The collected spill material shall be properly disposed at the CONTRACTOR's expense.

D. Upon completion of the work and with the concurrence of the OWNER, the CONTRACTOR must file a Notice of Termination (NOT) of Coverage under the KPDES General Permit for Storm Water Discharges Associated with Construction Activity with the appropriate local and state authorities.

E. Any fines or penalties resulting from the failure to comply with the terms of the state or local stormwater permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

6. OTHER WORK

6.1 Related Work at Site

OWNER may perform other work related to the Project at the site by OWNER'S own forces, have other work performed by utility owners or let other direct contracts therefor which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work; and, if such performance will involve additional expense to CONTRACTOR or requires additional time, a Change Order to the Contract will be negotiated.

6.2 Other Contractors or Utility Owners

CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER'S employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate the Work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their 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.

6.3 Delays Caused by Others

If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR'S failure to so report will constitute an acceptance of the other work as fit and proper for integration with

CONTRACTOR'S Work except for latent or non-apparent defects and deficiencies in the other work.

6.4 Coordination

If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Special Conditions, and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Special Conditions.

7. OWNER'S RESPONSIBILITIES

7.1 Communications

OWNER shall issue all communications to CONTRACTOR through ENGINEER.

7.2 Data and Payments

OWNER shall furnish the data required of OWNER under the Contract Documents promptly after they are due.

7.3 Lands, Easements, and Surveys

OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by ENGINEER in preparing the Drawings and Specifications.

7.4 Change Orders

OWNER is obligated to execute Change Orders as indicated in paragraph 9.4.

7.5 Inspections, Tests and Approvals

OWNER'S responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.3.

7.6 Stop or Suspend Work

In connection with OWNER'S right to stop Work or suspend Work, see paragraphs 12.4 and 14.1. Paragraph 14.2 deals with OWNER'S rights to terminate services of CONTRACTOR under certain circumstances.

8. ENGINEER'S STATUS DURING CONSTRUCTION

8.1 OWNER'S Representative

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

8.2 Visits to Site

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

8.3 Project Representation

ENGINEER will provide an Inspector to assist ENGINEER in observing the performance of the Work. If OWNER designates another agent to represent OWNER at the site who is not ENGINEER'S agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in the Special Conditions.

8.4 Clarifications and Interpretations

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

8.5 Authorized Variations in Work

ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order.

8.6 Rejecting Defective Work

ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective and will also have authority to require special inspection or testing of the Work as provided in paragraph 12.3, whether or not the Work is fabricated, installed or completed.

8.7 Shop Drawings

In connection with ENGINEER'S responsibility for Shop Drawings and samples, see paragraphs 5.15.1 through 5.16 inclusive.

8.8 Change Orders

In connection with ENGINEER'S responsibilities as to Change Orders, see Articles 10, 11 and 12.

8.9 Payments

In connection with ENGINEER'S responsibilities with respect to Applications for Payment, etc., see Article 13.

8.10 Determinations for Unit Prices

ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR.

ENGINEER will review with CONTRACTOR ENGINEER'S preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

8.11 Decision on Disputes

ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 10 and 11 in respect of changes in the Contract Price or Contract Time will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER within sixty days after such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.

8.12 Limitations on Engineer's Responsibilities

8.12.1 CONTRACTOR, Supplier, or Surety

Neither ENGINEER's authority to act under this Article 8 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

8.12.2 To Evaluate the Work

Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import

are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraphs 8.12.3 or 8.12.4.

8.12.3 CONTRACTOR'S Means, Methods, Etc.

ENGINEER will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR'S failure to perform or furnish the Work in accordance with the Contract Documents.

8.12.4 Acts of Omissions of CONTRACTOR

ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9. CHANGES IN THE WORK

9.1 OWNER May Order Change

Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Change Order. Upon receipt of such notice, 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).

9.2 Claims

Claims for an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Change Order will be settled as provided for in Article 10 or Article 11.

9.3 Work Not in Contract Documents

CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraph 3.4, except in the case of an emergency and except in the case of uncovering Work as provided in paragraph 12.3.4.

9.4 Change Orders

OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

9.4.1 changes in the Work which are ordered by OWNER pursuant to paragraph 9.1, are required because of acceptance of defective Work under paragraph 12.7 or correcting defective Work under paragraph 12.8, or are agreed to by the parties;

9.4.2 changes in the Contract Price or Contract Time which are agreed to by the parties; and

9.4.3 changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 8.11; 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 5.16.

9.5 Notice of Change

If notice 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 Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10. CHANGE OF CONTRACT PRICE

10.1 Total Compensation

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

10.2 Claim for Increase or Decrease in Price

The Contract Price may only be changed by a Change Order. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by CONTRACTOR'S written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of the occurrence of said event.

10.3 Value of Work

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

10.3.1 Unit Prices

Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraphs 10.9.1. through 10.9.3, inclusive).

10.3.2 Lump Sum

By mutual acceptance of a lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 10.6.2.1).

10.3.3 Cost Plus Fee

On the basis of the Cost of the Work (determined as provided in paragraphs 10.4 and 10.5) plus a CONTRACTOR'S fee for overhead and profit (determined as provided in paragraphs 10.6 and 10.7).

10.4 Cost of the Work

The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. 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 include only the following items; and shall not include any of the costs itemized in paragraph 10.5:

10.4.1 Payroll Costs

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. 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' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

10.4.2 Materials and Equipment Costs

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 all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

10.4.3 Subcontractor Costs

Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids will be accepted. If a 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 shall be determined in the same manner as CONTRACTOR'S Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

10.4.4 Special Consultant Costs

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.

10.4.5 Supplemental Costs

10.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.

10.4.5.2 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.

10.4.5.3 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, installation, dismantling and removal shall be in accordance with 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.

10.4.5.4 Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

10.4.5.5 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.

10.4.5.6 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER), provided they 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. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid a fee proportionate to that stated in paragraph 10.6.2 for services.

10.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.

10.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

10.4.5.9 Cost of premiums for additional Bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by OWNER.

10.5 Not to Be Included in Cost of the Work

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

10.5.1 Costs of Officers and Executives

Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general 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 a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 or specifically covered by paragraph 10.4.4 - all of which are to be considered administrative costs covered by the CONTRACTOR'S fee.

10.5.2 Principal Office

Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site.

10.5.3 Capital Expense

Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.

10.5.4 Bonds and Insurance

Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 10.4.5.9 above).

10.5.5 Costs Due to Negligence

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.

10.5.6 Other Costs

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.

10.6 Contractor's Fee

The CONTRACTOR'S Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

10.6.1 a mutually acceptable fixed fee; or if none can be agreed upon,

10.6.2 a fee based on the following percentages of the various portions of the Cost of the Work:

10.6.2.1 for costs incurred under paragraphs 10.4.1 and 10.4.2, the CONTRACTOR'S fee shall be fifteen percent;

10.6.2.2 for costs incurred under paragraph 10.4.3, the CONTRACTOR'S fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a fee, the maximum allowable to CONTRACTOR on account of overhead and profit of all Subcontractors shall be fifteen percent;

10.6.2.3 no fee shall be payable on the basis of costs itemized under paragraphs 10.4.4, 10.4.5 and 10.5;

10.6.2.4 the amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR'S Fee by an amount equal to ten percent of the net decrease; and

10.6.2.5 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 10.6.2.1 through 10.6.2.4, inclusive.

10.7 Itemized Cost Breakdown

Whenever the cost of any Work is to be determined pursuant to paragraphs 10.4 or 10.5, CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

10.8 Cash Allowances

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 done by such Subcontractors or Suppliers and for such sums within the limit of the allowances as may be acceptable to ENGINEER, CONTRACTOR agrees that:

10.8.1 Materials and Equipment

The 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

10.8.2 Other Costs

CONTRACTOR'S costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

10.8.3 Change Order

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.

10.9 **Unit Price Work**

10.9.1 General

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 established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. 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 in accordance with Paragraph 8.10.

10.9.2 Overhead and Profit

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.

10.9.3 Claim for Increase in Unit Price

Where 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 there is no corresponding adjustment with respect to any other item of Work and if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof, CONTRACTOR may make a claim for an increase in the Contract Price in accordance with Article 10.

11. **CHANGE OF CONTRACT TIME**

11.1 Change Order

The Contract Time may only be changed by a Change Order. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by ENGINEER in accordance with paragraph 8.11. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph 11.1.

11.2 Justification for Time Extensions

The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefore as provided in paragraph 11.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 6, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

11.3 Time Limits

All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 11 shall not exclude recovery for damages (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) for delay by either party.

12. WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

12.1 Warranty and Guarantee

CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 12.

12.2 Access to Work

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

12.3 Tests and Inspections

12.3.1 Timely Notice

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

12.3.2 Requirements and Responsibilities

The ENGINEER may require such inspection and testing during the course of the Work as he/she deems necessary to ascertain and assure the integrity and acceptable quality of the materials incorporated and the work performed. Inspection presence may be either full-time or intermittent, and neither the presence nor absence at any time of the ENGINEER or the INSPECTOR shall relieve the CONTRACTOR of sole responsibility for the acceptability and integrity of the Work or any part thereof.

The costs of sampling, testing, and inspection on-site to ascertain acceptability of the Work and materials will be borne by the OWNER except as otherwise provided. The OWNER will select a testing laboratory to perform such sampling and testing. Sampling and/or testing required by the CONTRACTOR or necessitated by failure of Work or materials to meet the above acceptability test shall be at the expense of the CONTRACTOR.

Inspection services may be performed by the employees of the OWNER or by others selected or designated by the OWNER or the ENGINEER.

Sampling and/or testing required for manufacturing quality and/or process control, for certification that raw mineral materials or manufactured products are the quality specified in the contract, or to assure the acceptability for incorporation into the Work shall be borne by the CONTRACTOR or the material supplier.

Cost for inspection, sampling, testing, and approvals required by the Laws or Regulations of any public body having competent jurisdiction shall be borne by the CONTRACTOR or the material supplier.

Sampling and testing will be in accord with pertinent codes and regulations and with appropriate standards of the American Society of Testing Materials or other specified standards.

12.3.3 On-Site Construction Test and Other Testing

All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by ENGINEER if so specified).

12.3.4 Covered Work

If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR'S intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

12.3.5 CONTRACTOR'S Obligation

Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR'S obligations to perform the Work in accordance with the Contract Documents.

12.4 OWNER May Stop the Work

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

12.5 Correction or Removal of Defective Work

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

12.6 One Year Correction Period

If within one year after the date of Completion or such longer period of time as may be prescribed by Laws or Regulations or 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, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER'S written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with non-defective Work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and

other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before 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 or by Change Order.

12.7 Acceptance of Defective Work

If, instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER'S evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals).

12.8 OWNER May Correct Defective Work

If CONTRACTOR fails within a reasonable time after written notice of ENGINEER to proceed to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 12.5, 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 and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and 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 such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR'S defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER'S rights and remedies hereunder.

13. PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 Schedule of Values

The schedule of values established as provided in paragraph 2.8 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.

13.2 Application for Progress Payment

At least ten days before each progress payment is scheduled (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, charges, security interests and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER'S interest therein, all of which will be satisfactory to OWNER. OWNER shall, within thirty (30) calendar days of presentation to him of an approved Application for Payment, pay CONTRACTOR the amount approved by ENGINEER. Monthly progress payments shall be ninety (90) percent of the sum obtained by applying the respective bid unit prices to the approved estimated quantities of work completed by the Contractor during the preceding month. The remaining ten (10) percent will be held by the Owner, as retainage. At such time as the Engineer deems appropriate - based on the quality of work performed, progress of cleanup, and other pertinent factors - the rate of retainage, or the total amount retained, may be reduced; although, any reduction in retainage, below the ten (10) percent level, is made solely at the Engineer's discretion. All remaining retainage held will be included in the final payment to the Contractor.

13.3 CONTRACTOR'S Warranty of Title

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

13.4 Review of Applications for Progress Payment

13.4.1 Submission of Application for Payment

ENGINEER will, 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.

13.4.2 ENGINEER'S Recommendation

ENGINEER may refuse to recommend the whole or any part of any payment, if, in ENGINEER'S opinion, it would be incorrect to make such representations to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER'S opinion to protect OWNER from loss because:

13.4.2.1 the Work is defective, or completed Work has been damaged requiring correction or replacement;

13.4.2.2 the Contract Price has been reduced by Written Amendment or Change Order;

13.4.2.3 OWNER has been required to correct defective Work or complete Work in accordance with paragraph 12.8; or

13.4.2.4 of ENGINEER'S actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.2.1 through 14.2.9 inclusive.

13.5 Partial Utilization

OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and has been completed. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER that said part of the Work is complete and request that a Certificate of Completion be issued for that part of the Work.

13.6 Final Inspection

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

13.7 Final Application for Payment

After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 5.14) and other documents - all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 13.10), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER'S property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

13.8 Final Payment and Acceptance

13.8.1 ENGINEER'S Approval

If, on the basis of ENGINEER'S observation of the Work during construction and final inspection, and ENGINEER'S review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR'S other obligations under the Contract Documents have been fulfilled, ENGINEER will, after receipt of the final Application for Payment, indicate in writing ENGINEER'S recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable, subject to the provisions of paragraph 13.10. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

13.8.2 Delay in Completion of Work

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, OWNER shall, upon receipt of CONTRACTOR'S final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. 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 10 of Part II, Information for Bidders, 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.

13.9 CONTRACTOR'S Continuing Obligation

CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 13.10).

13.10 Waiver of Claims

The making and acceptance of final payment will constitute:

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

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

14. SUSPENSION OF WORK AND TERMINATION

14.1 OWNER May Suspend Work

OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 10 and 11.

14.2 Termination of the Contract

The Owner may terminate the Work:

- 14.2.1** if CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency.
- 14.2.2** if a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency.
- 14.2.3** if CONTRACTOR makes a general assignment for the benefit of creditors.
- 14.2.4** if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR'S creditors.
- 14.2.5** if CONTRACTOR admits in writing an inability to pay its debts generally as they become due.
- 14.2.6** if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.8 as revised from time to time).
- 14.2.7** if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction.
- 14.2.8** if CONTRACTOR disregards the authority of ENGINEER.
- 14.2.9** if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents.

OWNER may, after giving CONTRACTOR (and the surety) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and use the

same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) such excess will be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by ENGINEER and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

14.2.10 if safety violations are observed and brought to the CONTRACTOR'S attention and CONTRACTOR fails to take immediate corrective measures. Owner will order an immediate termination of Contract. Note: It is the CONTRACTOR'S responsibility to know proper safety measures as they pertain to construction and OSHA.

14.3 CONTRACTOR'S Services Terminated

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.

14.4 Payment After Termination

Upon seven days' written notice to CONTRACTOR, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

14.5 CONTRACTOR May Stop Work or Terminate

If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within sixty days after it is submitted, or OWNER fails for sixty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus

reasonable termination expenses. In addition, and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven days' written notice to OWNER and ENGINEER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 5.16 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

15. MISCELLANEOUS

15.1 Claims for Injury or Damage

Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 15.1 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

15.2 Non-Discrimination in Employment

The CONTRACTOR shall comply with the following requirements prohibiting discrimination:

15.2.1 That no person (as defined in KRS 344.010) shall bid on LFUCG construction projects, or bid to furnish materials or supplies to the LFUCG, if, within six months prior to the time of opening of bids, said person shall have been found, by declaratory judgment action in Fayette Circuit Court, to be presently engaging in an unlawful practice, as hereinafter defined. Such declaratory judgment action may be brought by an aggrieved individual or upon an allegation that an effort at conciliation pursuant to KRS 344.200 has been attempted and failed, by the Lexington-Fayette County Human Rights Commission.

15.2.2 That it is an unlawful practice for an employer:

15.2.2.1 to fail or refuse to hire, or to discharge any individual or otherwise to discriminate against an individual, with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, age, or national origin; or

15.2.2.2 to limit, segregate or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee because of such individual's sex, race, color, religion, age, or national origin.

15.2.3 That it is an unlawful practice for an employer, labor organization, or joint-labor management committee controlling apprenticeship or other training or retraining, including on-the-job training programs to discriminate against an individual because of his race, color, religion, sex, age, or national origin in admission to, or employment in, any program established to provide apprenticeship or other training.

15.2.4 That a copy of this Ordinance shall be furnished to all suppliers and made a part of all bid specifications.

15.2.5 This Ordinance shall take effect after it is signed, published, and recorded, as required by law.

15.3 Temporary Street Closing or Blockage

The CONTRACTOR will notify the ENGINEER at least 72 hours prior to making any temporary street closing or blockage. This will permit orderly notification to all concerned public agencies. Specific details and restrictions on street closure or blockage are contained in the Special Conditions.

15.4 Percentage of Work Performed by Prime CONTRACTOR

The CONTRACTOR shall perform on site, and with its own organization, Work equivalent to at least fifty (50%) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction, and the ENGINEER determines that the reduction would be to the advantage of the OWNER.

15.5 Clean-up

Clean-up shall progress, to the greatest degree practicable, throughout the course of the Work. The Work will not be considered as completed, and final payment will not be made, until the right-of-way and all ground occupied or affected by the Contractor in connection with the Work has been cleared of all rubbish, equipment,

excess materials, temporary structures, and weeds. Rubbish and all waste materials of whatever nature shall be disposed of, off of the project site, in an acceptable manner. All property, both public and private, which has been damaged in the prosecution of the Work, shall be restored in an acceptable manner. All areas shall be draining, and all drainage ways shall be left unobstructed, and in such a condition that drift will not collect, or scour be induced.

15.6 General

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 12.1, 12.3.5, 13.3, and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, 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, and 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. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of the Agreement.

15.7 Debris Disposal

For all LFUCG projects any trash, construction demolition debris, yard waste, dirt or debris of any kind that is removed from the project site must be disposed of in accordance with local, state, and federal regulations. The disposal site or facility must be approved in advance by the LFUCG and disposal documentation is required. The Contractor will be responsible for payment of any fines associated with improper disposal of material removed from the project site.

END OF SECTION

PART V
SPECIAL CONDITIONS
INDEX

1	ARTICLE 15.....	SC-2
2	RISK MANAGEMENT PROVISIONS – INSURANCE AND INDEMNIFICATION	SC-3

1. ARTICLE 15

The requirements of **Section 15.4 Percentage of Work Performed by Prime Contractor** will not apply to this contract.

**RISK MANAGEMENT PROVISIONS
INSURANCE AND INDEMNIFICATION**

A. DEFINITIONS

The Contractor understands and agrees that the Risk Management Provisions of this Agreement (Contract) define the responsibilities of the Contractor to the Owner. As used in these Risk Management Provisions, the terms "Contractor" and "Owner" shall be defined as follows:

- (1) "Contractor" means the contractor and its employees, agents, servants, owners, principals, licensees, assigns and subcontractors of any tier.
- (2) "Owner" means the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, boards, consultants, assigns, volunteers and successors in interest.
- (3) "Owner/Engineer's Consultant" means Strand Associates, Inc.® Strand Associates, Inc.® provided design services for the Project, which included preparation of Contract Documents, and will provide services during construction consisting of: responding to questions of Owner and Engineer about the Contract Documents, providing shop drawing review, and attending progress meetings. Strand Associates, Inc.® shall be provided with the same indemnification by Contractor as is provided for Owner in the Contract Documents and shall be listed as an additional insured as is provided for Owner in the Contract Documents. Excepting those noted above, no other duties or responsibilities shall be construed from the Contract Documents as being the obligation of Strand Associates, Inc.®

B. INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (4) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (5) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (6) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and

expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.

- (7) These provisions shall in no way be limited by any financial responsibility or insurance requirements and shall survive the termination of this agreement.
- (8) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

FINANCIAL RESPONSIBILITY

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

INSURANCE REQUIREMENTS

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

Coverage

Limits

General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI).

LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.

- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability endorsement unless it is deemed not to apply by LFUCG.
- d. The General Liability Policy shall include a Pollution liability and/or Environmental Casualty endorsement unless it is deemed not to apply by LFUCG.
- e. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- f. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

Deductibles and Self-Insured Programs

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.

- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to ensure compliance with these Insurance Requirements.

DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

END OF SECTION

PART VI
CONTRACT AGREEMENT
INDEX

1. SCOPE OF WORK
2. TIME OF COMPLETION AND LIQUIDATED DAMAGES
3. ISSUANCE OF WORK ORDERS
4. THE CONTRACT SUM
5. PROGRESS PAYMENTS
6. ACCEPTANCE AND FINAL PAYMENT
7. THE CONTRACT DOCUMENTS
8. EXTRA WORK
9. ENUMERATION OF SPECIFICATIONS AND DRAWINGS

PART VI

CONTRACT AGREEMENT

THIS AGREEMENT, made on the 24th day of April, 2025, by and between **Lexington-Fayette Urban County Government (LFUCG)**, acting herein called "OWNER" and

W. Principles, LLC (dba The Walker Company of Kentucky), doing business as a corporation located in the City of Mt. Sterling, County of Montgomery, and State of Kentucky, hereinafter called "CONTRACTOR."

WITNESSETH: That the CONTRACTOR and the OWNER in consideration of eight hundred forty-four thousand Dollars and zero Cents (\$ 844,000) quoted in the proposal by the CONTRACTOR, dated March 28, 2025, hereby agree to commence and complete the construction described as follows:

1. SCOPE OF WORK

The CONTRACTOR shall furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, and the Special Conditions of the Contract, the Specifications and Contract Documents therefore as prepared by LFUCG for the **Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs**.

2. TIME OF COMPLETION AND LIQUIDATED DAMAGES

The time period estimated and authorized by the OWNER for the proper execution of the Work by the Contract, in full, is hereby fixed as one hundred eighty (180) calendar days. The time shall begin ten (10) days after the CONTRACTOR is given the Notice to Proceed with the Work. **Time is of the essence in the performance of this Agreement and CONTRACTOR shall be liable and responsible for damages suffered by OWNER as a result of the delay caused by CONTRACTOR.**

Should the CONTRACTOR fail or refuse to complete the work within the time specified in his Proposal and/or Contract (or extension of time granted by the OWNER), the CONTRACTOR shall pay liquidated damages in an amount of four hundred dollars (\$400) per day. The amount of liquidated damages shall in no event be considered as a penalty, nor other than an amount agreed upon by the CONTRACTOR and the OWNER for damages, loses, additional engineering, additional resident representation and other cost that will be sustained by the OWNER, if the CONTRACTOR fails to complete the work within the specified time. Liquidated damages will be applied on a rate per day for each and every calendar day (Sundays and holidays included) beyond the Contract expiration date stipulated in the Contract Documents, considering all time extension granted.

3. ISSUANCE OF WORK ORDERS

Notice to begin Work will be given in whole or for part of the Work as determined by the OWNER

pending the availability of funds. The order of construction will be as determined by the Engineer after consultation with the CONTRACTOR and the OWNER.

4. THE CONTRACT SUM

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the Contract, as quoted in the proposal, subject to any additions and deductions, as provided therein.

5. PROGRESS PAYMENTS

The OWNER shall make payments on account of the Contract, as provided in accordance with the General Conditions, as estimated by the Engineer, less the aggregate of previous payments.

6. ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due within ninety (90) days after completion of the Work, provided the Work be then fully completed and the Contract fully accepted.

Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with the Work has been paid.

If, after the Work has been substantially completed, full completion thereof is materially delayed through no fault of the CONTRACTOR, and the ENGINEER so certifies, the OWNER shall upon certificate of the ENGINEER, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

7. THE CONTRACT DOCUMENTS

The Advertisement for Bids, Information for Bidders, the General Conditions, Performance and Payment Bonds, Contract Agreement, Special Conditions, Technical Specifications, any and all Addenda, Proposal, and Plan Drawings form the Contract, and they are fully a part of the Contract as if hereto attached or herein repeated.

If during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from ENGINEER; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order:

1. Agreement
2. Field and Change Orders

3. Addenda
4. Special Conditions
5. Information for Bidders
6. General Conditions
7. Specifications and Drawings

8. EXTRA WORK

The OWNER, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the Work, the Contract Sum being adjusted accordingly. All such Work shall be executed and paid for in accordance with the General Conditions, which is a part of this Contract.

9. ENUMERATION OF SPECIFICATIONS AND DRAWINGS

THE FOLLOWING IS AN ENUMERATION OF THE SPECIFICATIONS AND DRAWINGS (CONTRACT DOCUMENTS):

SPECIFICATIONS

SECTION NO.	SPECIFICATION TITLE	PAGES
I	Advertisement for Bids	AB 1 - 5
II	Information for Bidders	IB 1 - 9
III	Form of Proposal	P 1 - 33
IV	General Conditions	GC 1 - 50
V	Special Conditions	SC 1 - 6
VI	Contract Agreement	CA 1 - 7
VII	Performance and Payment Bonds	PB 1 - 7
VIII	Addenda	AD 1
IX	Specifications	
X	Technical Specifications	
XI	Appendix A	
XII	Appendix B	

DRAWINGS

DRAWING NO.	DRAWING TITLE
01	Overall Site Location Plan
02	Cover Demolition Plan
03	Plan and Cover Plan
04	Sections
05	Wall Repair Plan and Sections

IN WITNESSETH WHEREOF, the parties hereto have executed this Contract as of the date and year above written.

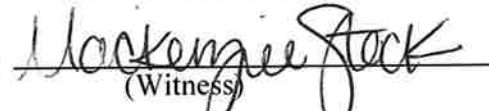
(Seal)

Lexington-Fayette Urban County Government.
Lexington, Kentucky

(Owner)

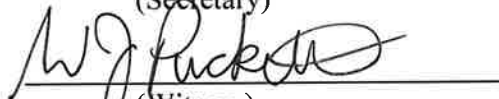
ATTEST:


Clerk of the Urban County Council

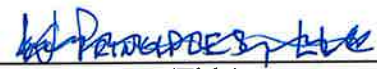

(Witness)

(Seal)


(Secretary)*


(Witness)

BY: 
MAYOR


(Title)

W PRINCIPLES, LLC
(Contractor)

BY: 

PRESIDENT
(Title)

200 APPERSON HTS. Suite 200, Mt. Sterling, KY 40353
(Address and Zip Code)

IMPORTANT: *Strike out any non-applicable terms.

Secretary of the OWNER should attest. If the CONTRACTOR is a corporation, the Secretary should attest. Give the proper title of each person executing the Contract.

END OF SECTION

NOTICE OF AWARD

CONTRACTOR: W. Principles, LLC (dba The Walker Company of Kentucky)
200 Apperson Heights, Suite 200
Mt. Sterling, KY 40353

OWNER: Lexington-Fayette Urban County Government
Division of Water Quality
Lexington, Kentucky

PROJECT: Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs
Lexington-Fayette Urban County Government

LFUCG Bid No. 28-2025

You are hereby notified that the Owner has considered the Bid submitted by you for the above-described project in response to its Advertisement for Bids dated February, 2025.

It appears that it is to the best interest of said Owner to accept your Bid in the amount of eight hundred forty-four thousand dollars (\$ 844,000), and you are hereby notified that your Bid has been accepted for

Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs,

LFUCG Bid No. 28-2025.

The Contractor is required by these Contract Documents to execute and deliver the formal Contract Agreement with the undersigned Owner and to furnish the required Contractor's Performance and Payment Bonds within ten (10) days from the date of the delivery of this Notice.

If you fail to execute said Contract Agreement and to furnish said Bonds within ten (10) days from the date of delivery of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and to award the Work covered by your Bid to another, or to re-advertise the Work or otherwise dispose thereof as the Owner may deem appropriate.

Dated this 24th day of April, 2025.

Lexington-Fayette Urban County Government

By: Emily Epperson

Title: Municipal Engineer Sr.

NOTICE OF ACCEPTANCE

Receipt of the above Notice of Award is hereby acknowledged this 30 day of APRIL, 2025.

By: [Signature]

Title: PRESIDENT

NOTICE TO PROCEED

CONTRACTOR: ZOO APPERSON HES. SUITE 200, Mt. Sterling, KY 40253

W PRINCIPLES, LLC

OWNER: Lexington-Fayette Urban County Government
Division of Water Quality
Lexington, Kentucky

PROJECT: Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs
Lexington-Fayette Urban County Government

LFUCG Bid No. 28-2025

Contract Agreement Amount:

_____ dollars (\$ _____)

You are hereby notified to commence Work on the referenced project on or before _____, 20__ and to substantially complete Work within one hundred eighty (180) CONSECUTIVE CALENDAR DAYS thereafter. Your Contract Agreement completion date is therefore _____, 20__.

The Contract Agreement provides for assessment of the sum of four hundred dollars (\$400) as liquidated damages for each consecutive calendar day after the above established Contract Agreement completion date that the Work remains incomplete.

Lexington-Fayette Urban County Government

By: _____

Title: _____

Date: _____

PART VII

PERFORMANCE AND PAYMENT BONDS

1. PERFORMANCE BOND
2. PAYMENT BOND

PART VII

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that

W Principles, LLC

(Name of CONTRACTOR)

200 Apperson Heights, Suite 200, Mt. Sterling, KY 40353

(Address of CONTRACTOR)

a Limited Liability Company, hereinafter
(Corporation, Partnership, or Individual)

called Principal, and SiriusPoint America Insurance Company
(Name of Surety)

1 World Trade Center, 285 Fulton Street, 47th Floor Suite 47J, New York, NY 10007

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT (LFUCG)

200 East Main Street, Third Floor

Lexington, Kentucky 40507

hereinafter called "OWNER" in the penal sum of: Eight Hundred Forty Four Thousand and 00/100
Dollars, (\$ 844,000.00), for the payment of whereof Principal and Surety bind themselves, their heirs,
executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal by written agreement is entering into a Contract with OWNER for **Town Branch
WWTP Primary Digester No. 2 Roof Leak Repairs** in accordance with drawings and specifications
prepared by **Strand Associates, Inc. and LFUCG** which Contract is by reference made a part hereof and is
hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall
promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall
remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the OWNER.

Whenever, Principal shall be, and declared by OWNER to be in default under the Contract, the OWNER
having performed OWNER'S obligations thereunder, the Surety may promptly remedy the default, or shall
promptly:

- (1) Complete the Contract in accordance with its terms and conditions or
- (2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or if the OWNER elects, upon determination by the OWNER and Surety jointly of the lowest responsible bidder, arrange for a Contract between such bidder and OWNER, and make available as Work progresses (even though there may be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract Price", as used in this paragraph shall mean the total amount payable by OWNER to Principal under the Contract and any amendments thereto, less the amount properly paid by OWNER to Principal.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the OWNER named herein or the heirs, executors, administrators, or successors of OWNER.

IN WITNESS WHEREOF, this instrument is executed in Four (4) counterparts, each one of (number)

which shall be deemed an original, this the 24th day of April, 20 25.

ATTEST:


(Principal) Secretary

W Principles, LLC


Principal

BY:  (s)

200 Apperson Heights, Suite 200

(Address)

Mt. Sterling, KY 40353


Witness as to Principal

200 Apperson Heights, Suite 200

(Address)

Mt. Sterling, KY 40353

ATTEST:


(Surety) Secretary

SiriusPoint America Insurance Company

BY:  (s)
Attorney-in-Fact Jeffrey M. Wilson

1 World Trade Center, 235 Fulton Street,

(Address)

47th Floor Suite 47J, New York, NY 10007

(SEAL)

Mark W. Edwards, II

Witness as to Surety

2000 International Park Drive, Suite 600

(Address)

Birmingham, AL 35243

TITLE: Alisa B. Ferris, Sr. Vice President - Surety
Surety

BY: 

TITLE: Sr. Vice President - Surety

NOTE: The number of executed counterparts of the bond shall coincide with the number of executed counterparts of the Contract.

**POWER OF ATTORNEY
SIRIUSPOINT AMERICA INSURANCE COMPANY
NEW YORK**

By: Melissa J. Ralph
Melissa J. Ralph
Secretary

Notary Public
My Commission expires
March 31, 2025


Melissa J. Ralph
Secretary

PART VII

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENT: that

W Principles, LLC

(Name of Contractor)

200 Apperson Heights, Suite 200, Mt. Sterling, KY 40353

(Address of Contractor)

a _____, hereinafter
Limited Liability Company
(Corporation, Partnership or Individual)

called Principal, and _____
SiriusPoint America Insurance Company
(Name of Surety)

1 World Trade Center, 285 Fulton Street, 47th Floor Suite 47J, New York, NY 10007
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT (LFUCG)
200 East Main Street, Third Floor
Lexington, Kentucky 40507

Obligee, hereinafter called OWNER, for the use and benefit of claimants as hereinafter defined, in the amount of _____ Eight Hundred Forty Four Thousand and 00/100 _____ Dollars (\$ 844,000.00) the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal by written agreement is entering into a Contract with OWNER for **Town Branch WWTP Primary Digester No. 2 Roof Leak Repairs** in accordance with drawings and specifications prepared by **Strand Associates, Inc. and LFUCG** which Contract is by reference made a part hereof and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the OWNER that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The OWNER shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - (a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the OWNER, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the Work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the Work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, OWNER, or Surety, at any place where an office is regularly maintained for the transaction of business or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.
 - (b) After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - (c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against aid improvement, whether or not claim for the amount of such lien be presented under and against this bond.

IN WITNESS WHEREOF, this instrument is executed in Four (4) counterparts, each one of (number)


which shall be deemed an original, this the 24th day of April, 20 25.

ATTEST:

(Principal) Secretary

(SEAL)

W Principles, LLC
(Principal)

BY:  (s)
200 Apperson Heights, Suite 200
(Address)
Mt. Sterling, KY 40353

(Witness to Principal)

200 Apperson Heights, Suite 200

(Address)

Mt. Sterling, KY 40353

ATTEST:


(Surety) ~~SECRET~~

(SEAL)

Mark W. Edwards, II

Witness as to Surety

2000 International Park Drive, Suite 600

(Address)

Birmingham, AL 35243

SiriusPoint America Insurance Company
(Surety)

BY: 
(Attorney-in-Fact) Jeffrey M. Wilson

1 World Trade Center, 285 Fulton Street

(Address)

47th Floor Suite 47J, New York, NY 10007

NOTE: The number of executed counterparts of the bond shall coincide with the number of executed counterparts of the Contract.

END OF SECTION

MGFBHM01_0323

**POWER OF ATTORNEY
SIRIUSPOINT AMERICA INSURANCE COMPANY
NEW YORK**

KNOW ALL MEN BY THESE PRESENTS: That SiriusPoint America Insurance Company, a New York corporation, having its principal office in the City of New York, pursuant to the following Resolution, which was adopted by the Board of Directors of the Company, to wit:

RESOLVED, that the President, Senior Vice President, Chief Financial Officer, Secretary or Assistant Secretary is hereby authorized to execute Powers of Attorney appointing as attorneys-in-fact selected employees of certain surety companies who shall have the power for and on behalf of the Company to execute and affix the seal of the Company to surety contracts as co-surety.

Does hereby nominate, constitute and appoint:

William M. Smith, Robert R. Freely, Richard H. Mitchell, Mark W. Edwards, II, Jeffrey M. Wilson, Anna Childress, Alisa B. Ferris

Its true and lawful attorney-in-fact, to make, execute, seal and deliver for and on its behalf, and as its act and deed; any and all bonds, contracts, agreements of indemnity, and other undertakings in suretyship (NOT INCLUDING bonds without a fixed penalty or financial guarantee bonds) and to bind the Company thereby as fully and to the same extent as if same were signed by the duly authorized officers of the Company, provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

\$50,000,000 single bond limit

All acts of said attorneys-in-fact pursuant to the authorities herein given are hereby ratified and confirmed. The executive officers listed above in the Resolution may from time to time and at any time remove any such appointee and revoke the power given to him or her.

The execution of such bonds or undertakings in pursuance of these presents, within one year of the date of issue of these presents, shall be binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in New York, New York, in their own proper persons.

IN WITNESS WHEREOF, SiriusPoint America Insurance Company has caused its corporate seal to be hereunto affixed, and these presents to be signed by its Secretary this 17th day of August in the year 2023.

SiriusPoint America Insurance Company

By: 
Melissa J. Ralph
Secretary

State of New Jersey)

) ss.

County of Monmouth)

On this 17th day of August 2023, before me, a Notary Public of the State of New Jersey in and for the County of Monmouth duly commissioned and qualified, came Melissa J. Ralph, Secretary, of SiriusPoint America Insurance Company, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and acknowledged the execution of the same, and, being by me duly sworn, depose and saith, that she is the officer of the Company aforesaid, and that the seal affixed to the preceding instrument as the corporate seal of said Company, and the said corporate seal and her signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal.



State of New Jersey
County of Monmouth


Notary Public
My Commission expires
March 31, 2028

I, Melissa J. Ralph, Secretary, of SiriusPoint America Insurance Company, a New York corporation, do hereby certify that the above and foregoing is a full, true correct copy of Power of Attorney, is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company this _____ day of _____.




Melissa J. Ralph
Secretary

PART VIII

ADDENDA

All addenda issued during the bidding of the Project will be reproduced in the signed Contract Documents, on the pages following this heading sheet.

<u>Addendum Number</u>	<u>Title</u>	<u>Date</u>
1.	<hr/>	<hr/>
2.	<hr/>	<hr/>
3.	<hr/>	<hr/>
4.	<hr/>	<hr/>
5.	<hr/>	<hr/>

PART IX
SPECIFICATIONS

SECTION 01 11 00

SUMMARY OF WORK

PART 1—GENERAL

1.01 PROJECT SCOPE

- A. Contractor shall furnish all equipment, supervision, labor, skill, material, and all other items necessary to complete the Work as described within the Contract Documents unless otherwise noted. All work shall be completed within the terms and conditions of the Contract and shall be furnished complete and ready for use.

1.02 CONTRACT DOCUMENTS

- A. Contractor shall examine all Specifications and Drawings for the Work to gain a complete understanding of the project and the type of construction and temporary measures that may be required.
- B. Throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name or by reference to recognized industry standards.
- C. The Specifications and Drawings indicate the extent and general arrangement of the Work. If any departures from the Drawings and Specifications are deemed necessary by the Contractor to accommodate the materials and equipment he/she proposes to furnish, details of such departures and reasons therefore shall be submitted as soon as practicable to the Engineer for approval. No such departures shall be made without the prior written approval of the Engineer. Approved changes shall be made without additional cost to the Owner for this Work.

1.03 ADDITIONAL ENGINEERING SERVICES

- A. In the event that the Engineer is required to provide additional engineering services as a result of substitution of materials or equipment by the Contractor which are not "or equal", or changes by the Contractor in dimension, weight, power requirements, etc., of the equipment and accessories furnished, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor for the convenience of the Contractor, then the Engineer's charges in connection with such additional services shall be charged to the Contractor.
- B. In the event that the Engineer is required to provide additional engineering services as a result of Contractor's errors, omissions, or failure to conform to the requirements of the Contract Documents, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor solely for the convenience of the Contractor, then the Engineer's charges in connection with such additional services shall be charged to the Contractor by the Owner.

1.04 ADDITIONAL OWNER'S EXPENSES

- A. In the event the Work is not completed within the time set forth in the Contract Agreement or within the time to which such completion may have been extended in accordance with the Contract Documents, the additional engineering or inspection charges incurred by the Owner may be charged to the Contractor and deducted from the monies due him. Extra work or supplemental Contract work added to the original Contract, as well as extenuating circumstances beyond the control of the Contractor, will be given due consideration by the Owner before assessing engineering and inspection charges against the Contractor.
- B. Charges assessed to the Contractor for additional engineering and inspection costs will be determined based on actual hours charged to the job by the Engineer. Daily rates will depend on the number and classifications of employees involved. Additional charges will apply if multiple personnel are needed or if engineering time is required as part of the work outside the contract times.
- C. Charges for additional Owner's expenses shall be in addition to any liquidated damages assessed in accordance with the Contract.

1.05 CHEMICALS

- A. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, or reactant of other classification, must show approval of either the EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with all applicable rules and regulations.

1.06 LIMITS OF WORK AREA

- A. The Contractor shall confine his/her operations within the limits of construction shown on the Drawings. Storage of equipment and materials or erection and use of sheds outside of the limits of construction, if such areas are the property of the Owner, shall be used only with the Owner's approval. Such storage or temporary structures, even within the limits of construction, shall not be placed on properties designated as easements or rights-of-way unless specifically permitted elsewhere in the Contract Documents.
- B. The Contractor shall secure, insure, maintain, and restore staging area.

1.07 WEATHER CONDITIONS

- A. No work shall be done when the weather is unsuitable. The Contractor shall take necessary precautions (in the event of impending storms) to protect all work, materials, and equipment from damage or deterioration due to floods, driving rain, wind, and snow storms. The Owner reserves the right, through the opinion of the Engineer, to order that additional protection measures over and beyond those proposed by the Contractor, be taken to safeguard all components of the Work. The Contractor shall not claim any compensation for such precautionary measures so ordered, nor claim any compensation from the Owner for damage to the work from weather elements.

1.08 PERIODIC CLEANUP AND SITE RESTORATION

- A. During construction, the Contractor shall regularly remove all accumulated debris and surplus materials resulting from his operations at the site. Unused equipment and tools shall

be stored at the Contractor's staging area. Restoration shall be performed periodically after accumulated debris and surplus materials are removed.

- B. Upon failure of the Contractor to perform periodic cleanup and basic restoration of the site to the Owner's satisfaction, the Owner may, upon five (5) days prior written notice to the Contractor, without prejudice to any other rights or remedies of the Owner, cause such work for which the Contractor is responsible to be accomplished to the extent deemed necessary by the Owner, and all costs resulting therefrom shall be charged to the Contractor and deducted from the amounts of money that may be due him/her.

1.09 PROGRESS MEETINGS

- A. Progress meetings will be held throughout the duration 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.
- D. CONTRACTOR shall also 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.
 - d. Cause of the delay.
 - e. Corrective action and schedule adjustments to correct the delay.
 - f. Impact of the delay on other activities, on milestones, and on completion dates.
 - 4. Changes in construction sequence.

1.10 CONSTRUCTION REQUIREMENTS

- A. General Information and Requirements
 - 1. The requirements of this section shall be coordinated with the notes on the Drawings.
 - 2. Wastewater treatment at the Town Branch WWTP consists of screening, grit removal, primary clarification, activated sludge aeration, final clarification, disinfection with chlorine, dechlorination with sulfur dioxide, and post-aeration of the final effluent. Primary and waste activated sludge are comingled in the primary clarifiers, cothickened in the gravity thickeners, stabilized in the anaerobic digesters, dewatered via centrifuges, and landfilled.
 - 3. The three primary anaerobic digesters each have a diameter of 75 ft and a side water depth of 29 ft. Each digester has a volume of approximately 1 million gallons. Digester

No. 2 has a dual membrane gasholding cover. Digesters No. 1 and No. 3 have steel floating dual-deck covers.

4. During construction anaerobic digestion and digester gas handling must be continuous unless short term shutdowns are arranged and scheduled in advance with Owner. Owner has treatment redundancy that allows for tankage and units to be taken out of service for varying durations. Contractor shall coordinate all construction and shutdowns with Owner. Owner reserves the right to put any tankage or treatment units back in service with minimal or no notice to Contractor if required due to wet weather or other extenuating circumstances.
5. It shall be the responsibility of the Contractor to not in any way impair the treatment or operating efficiency of the facilities, regardless of the work underway. No bypassing of raw or partially treated wastewater to the receiving stream shall occur at any time as a result of construction. This often requires that temporary facilities be provided prior to removing existing units from service for modification or repair. The Contractor shall provide all temporary piping, bypass pumping, bulkheads, and temporary construction required to complete the Work.
6. Operation of existing treatment facilities will be the responsibility of the Owner. The Contractor shall cooperate with the Owner's staff at all times. A minimum of 48 hours prior to making any modifications to existing facilities, the Contractor shall notify the Owner in writing. At the time of notification, the Contractor shall submit a schedule for completion of the Work, including a description of measures that will be taken to minimize the impact to existing facilities.
7. Except as specified, the Owner will drain existing tanks to the level of the lowest existing drain line. Subsequent cleaning or further draining and/or pumping shall be provided by the Contractor. If there exists sludge, grit, or other residue, it shall be the responsibility of the Contractor to remove and dispose of this material. The Contractor shall provide notice three working days prior to beginning work in an area to enable the Owner to prepare. Owner anticipates needing two weeks to drain Digester No. 2. Typically, the withdrawal pumps are only able to drain the tank to elevation 887.23. Contractor will be responsible for draining and cleaning with a vac truck below this elevation. Refer to drawing M-9 in Appendix B for elevation information.
8. Access: The Contractor shall maintain roadways open at all times to meet Owner's requirements, including access for sludge hauling vehicles and chemical deliveries. All city-owned roadways around the WWTP shall be cleaned of construction site materials, soil, and debris daily.

B. Construction Sequence

1. The following construction sequence is provided as a general guideline for the information and benefit of the Contractor. This construction sequence is not intended to dictate means, methods of construction, or direct construction activities. This construction sequence is both general and conceptual and is intended to delineate minimum recommended outages, shutdowns, and operating units to be maintained in service. The general construction sequence is projected to allow the Work to be completed while maintaining treatment at the digester complex. It is not intended to be all inclusive and does not list all work elements or details that are required to complete the Work. The Contractor shall be responsible for implementing any additional details required at no additional cost to the Owner.

2. The Contractor may propose an alternate sequence or modifications to this sequence. The Owner and Engineer will review the proposed modifications and determine feasibility. Any modifications to this general construction sequence shall be proposed in writing and approved by the Owner and Engineer prior to implementation.
3. The TBWWTP Primary Digester No. 2 Roof Leak Repairs includes labor, materials, tools, equipment, testing, and all other incidentals to complete the Work. Contractor shall contract with the membrane cover manufacturer, Evoqua Water Technologies (Evoqua), to remove and reinstall the cover. The ultimate delineation of tasks shall be coordinated between Evoqua and the Contractor to preserve Evoqua's membrane cover warranty coverage. For each task in the construction sequence, the anticipated responsible party is delineated in parentheses.
4. Construction Sequence:
 - g. Coordinate with Owner to take Digester No. 2 out of service and drain tank. (Contractor)
 - h. Evoqua shall be onsite and ready to begin work as soon as Digester No. 2 is drained.
 - i. Deflate and remove membranes, membrane clamp bars, membrane restraint cables, membrane restraint cable brackets, and hoses (digester gas drawoff, digester gas sensing line, air purge line, and air supply/withdrawal line). Take inventory of hardware and equipment to be reused and turn over to Owner for storage. (Evoqua)
 - j. Fully empty and clean Digester No. 2 concurrently while or immediately after Evoqua removes cover equipment. Contractor shall work expeditiously to clean digester as soon as possible to prevent odors. Existing sludge feed piping, sludge withdrawal piping, mixing system piping and equipment, and various other appurtenances are installed inside the digester. All equipment installed in the digester may not be shown on the Drawings. Refer to drawing M-9 in Appendix B for information on equipment installed inside the digester. Contractor will be held liable for damages to any existing digester equipment that occurs during tank cleaning or performance of the Work. (Contractor)
 - k. Remove lightning protection system, metal drip edge, and all other appurtenances interfering with access to the concrete mounting ring. (Contractor)
 - l. Modify concrete cover mounting ring, roofing, flashing, and reinstall the lightning protection system. (Contractor)
 - m. Install new clamp bar anchors; reinstall cable brackets, cables, and membranes; install new hoses; inflate membranes; and perform pressure testing and membrane cover startup procedure. (Evoqua)
 - n. Assist Owner with returning Digester No. 2 to service. (Evoqua and Contractor)
 - o. Make masonry wall repairs at lower digester control building roof. (Contractor)

PART 2–PRODUCT

(NOT USED)

PART 3–EXECUTION

(NOT USED)

END OF SECTION

Section 01 11 00-5

SECTION 01 33 00

SUBMITTALS

PART 1-GENERAL

1.01 DESCRIPTION

- A. Submittals include shop drawings, product data, samples, operation and maintenance (O&M) manuals, construction progress schedules, submittal schedules, etc.
- B. Concrete mix designs shall be submitted as specified in Division 03.
- C. The requirements of this section shall be interpreted in coordination with the requirements of the General Conditions and the entirety of the Contract Documents.

1.02 ADMINISTRATIVE AND MISCELLANEOUS REQUIREMENTS

- A. Provide submittals (except paint swatches and samples) electronically in PDF format. Each submittal shall be a single PDF file. All text portions of provided PDFs shall be word searchable.
- B. For each product and piece of equipment, the submittal and/or resubmittal shall identify the name and location of project, date of submission to Engineer, supplier name and contact person with associated mailing address, physical address, phone number, and e-mail address. Shop drawings and O&M manuals shall contain the requested contact information for OEM suppliers as well as aftermarket parts and service.
- C. Submittal PDFs shall be numbered in order of submission and titled according to the specification section to which the submittal applies, for example:
 - 1. The third shop drawing for the project submitted to Engineer with information pertaining to specification section 43 23 21 Centrifugal Pumps specifically for sludge feed pumps shall be titled "SD03 432321-0 Sludge Feed Pumps." The "-0" indicates if the current submittal is the original submittal (-0) or is a resubmittal (-1, -2, etc.).
 - 2. The fifth O&M manual for the project submitted to Engineer with information pertaining to specification section 26 24 19 Motor Control Centers specifically for MCC-H shall be titled "OM05 262419-0 MCC-H." The "-0" indicates if the current submittal is the original submittal (-0) or is a resubmittal (-1, -2, etc.).
- D. Resubmittals shall include an itemized list at the beginning of the PDF noting changes, additions, and/or deletions to the previous submittal version.
- E. All comments and marks shall be addressed if a resubmittal is required. This includes producing updated drawings, data sheets, schedules, etc.
- F. Contractor is responsible for reviewing and implementing all manufacturer/supplier requirements. Contractor is responsible for proper storage, installation, erection, start-up, commissioning, calibration, cleaning, conditioning, etc. of all provided equipment and materials.
- G. Contractor shall delineate in writing in the submittal any deviations from the requirements of the Contract Documents.

- H. Engineer reserves the right to withhold action on any submittal requiring coordination with other submittals that have not yet been provided.

1.03 SCHEDULES

- A. Submit preliminary schedules for submittals and construction progress within 10 days of the effective date of the Agreement. Schedules are subject to Owner and Engineer approval.
- B. Construction progress schedules shall illustrate the planned sequence of construction activities and delineate the project critical path. Separate disciplines and stages shall be uniquely identified. Proposed start and end dates with available float days shall be shown for each activity. Drawing, document, and submittal compilation and review periods shall be shown on the schedule.
- C. Construction progress schedules shall be delineated in a horizontal bar chart format showing weekly time intervals.
- D. Emphasize milestone dates (if applicable), startup dates, and final completion on the construction progress schedule.
- E. Construction progress schedules shall be updated monthly and provided to Engineer and Owner.

1.04 SHOP DRAWINGS

- A. Shop drawings shall be used to establish the type, function, and quality of workmanship for materials and equipment that are acceptable to Owner for this Work. Shop drawings shall be submitted for all manufactured or fabricated items. Shop drawings shall include item-specific data sheets, dimensional drawings, fabrication drawings, performance curves, calculations, templates, instructions, wiring diagrams, etc. Shop drawing information shall be satisfactory to thoroughly establish adequacy, size, functionality, operability, etc. of proposed materials and equipment.
- B. Wherever possible, the technical specifications identify a manufacturer and model/item number of minimum acceptable quality.
- C. For each unit of work or system, compile all relevant data into one submittal. If multiple similar pieces of equipment or materials are to be provided, similar items shall be documented in one submittal.
- D. Shop drawings shall contain detailed information about how the material or equipment will be installed and/or incorporated into the Work.
- E. Contractor is responsible for taking field measurements as needed to assure proper connection, fit, function, and performance of all work and equipment provided.
- F. Shop drawings shall indicate all factory or shop paint coatings applied by suppliers, manufacturers, and fabricators. Contractor shall coordinate all factory coatings with field coatings as required.
- G. Shop drawings shall include information about fasteners used in factory assembly as well as fasteners required for field assembly/installation.
- H. Shop drawings for electrically operated items (including instrumentation and controls) shall include size and color coding of all terminations and connections and details about coordination with related equipment.

- I. Communicate shop drawing review schedules required to meet construction progress completion dates. Contractor shall be responsible for providing sufficient time for shop drawing review including time for resubmittal if necessary. Engineer shall advise Contractor promptly if a review will be delayed for any reason, including for coordination with other submittals.
- J. Supplier and/or Contractor shall mark/identify pertinent products, models, options, etc. when general data sheets are submitted.
- K. Shop drawings shall document that the item meets applicable codes and standards.
- L. All submittals shall be reviewed by the Contractor and bear the Contractor's stamp of approval.
- M. After approval by Contractor, all submittals shall be submitted to Engineer for review. Shop drawings submitted to Engineer will be reviewed and stamped "Approved," "Approved as Noted," "Approved as Noted-Resubmit," or "Not Approved." Contractor may proceed with ordering and installation/construction with shop drawings marked "Approved" or "Approved as Noted."
- N. Engineer's review shall not relieve the Contractor from errors or omissions in making the Work compliant with the Contract Documents. Refer to additional language in the General Conditions regarding the roles of Contractor and Engineer in submittal reviews and responsibility for errors and omissions. Contractor is obligated and responsible for properly coordinating the details of the Work in such a manner that the purpose and intent of the Contract will be achieved. Any detailed checking by the Engineer shall not be construed as placing on the Engineer or Owner any responsibility for the accuracy, proper fit, functioning, or performance of any phase of the Work. The Contractor is responsible for confirmation and correlation of dimensions at the job site, means and methods of construction, coordination of all work and trades, and performance of his work in a safe and satisfactory manner.

1.05 PAINT SWATCHES AND SAMPLES

- A. Accurate paint swatches and samples shall be provided to Engineer and Owner for review and selection of color and finish. Contractor shall describe variations in wear durability, weather resistance, expected life, etc. of each swatch or sample. If the Contract Documents specifically describe the desired colors/finishes, Contractor is not expected to submit swatches or samples.

1.06 O&M MANUALS

- A. O&M manuals shall include:
 - 1. Manufacturer's detailed instructions for assembly, installation, startup, and all modes of operation
 - 2. Manufacturer's detailed and dimensioned fabrication, manufacturing, assembly, and/or exploded view drawings
 - 3. Instructions for all maintenance activities
 - 4. Detailed preventative maintenance program with procedural guides
 - 5. Lubrication schedules
 - 6. Types, quantities, and ordering information for all parts and equipment for a complete,

working installation

7. Spare parts list
 8. Model/item numbers
 9. Troubleshooting guides
 10. Test data and performance curves
 11. Additional information as necessary or as requested by Engineer or Owner
- B. O&M manuals for all pieces of equipment shall be provided a minimum of two weeks prior to equipment startup.
 - C. O&M manuals shall include all item-specific data sheets, drawings, performance curves, calculations, wiring diagrams, etc. that were submitted in the original shop drawing. Any differences from the information submitted in the original shop drawing or pertaining to as-built conditions shall be reflected in the O&M manuals.
 - D. O&M manuals shall include contact and ordering information for future repair or replacement needs, including replacement parts and full-unit replacement. Refer to item 1.02B for contact information requirements.

PART 2—PRODUCT

(NOT USED)

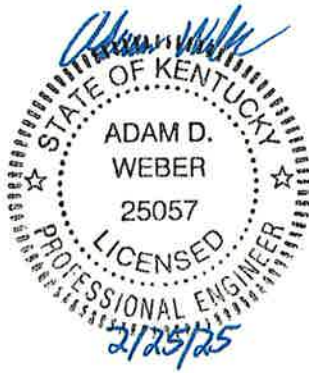
PART 3—EXECUTION

(NOT USED)

END OF SECTION

PART X

TECHNICAL SPECIFICATIONS



SECTION 02 41 00

DEMOLITION

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: All demolition, removal, and salvage work as shown on the Drawings or specified herein to include, but not necessarily limited to the following: Primary Digester No. 2 Cover.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 SUBMITTALS

- A. CONTRACTOR shall submit permits and notices, if required, authorizing building demolition.

1.03 QUALITY ASSURANCE

- A. CONTRACTOR shall perform demolition, removal, and salvage in conformity with applicable federal, state, and local safety practices and code requirements.
- B. Obtain and pay for all necessary permits, licenses, and certificates required.

1.04 SEQUENCE

- A. No demolition, removal, or salvage work shall commence until approval to proceed has been granted by OWNER. Such work shall be completed in accordance with the construction sequence included in Division 01 of these Specifications and in accordance with the construction phases of this project and work to be done by other contractors.

PART 2—PRODUCTS

NOT APPLICABLE

PART 3—EXECUTION

3.01 BREAKING DOWN AND REMOVING STRUCTURES

- A. General:
 - 1. When a portion of any existing structure is to be retained, CONTRACTOR shall take care during construction operations so as not to impair the value of the retained portion.
 - a. Complete all operations necessary for the removal of any existing structure which might endanger the new construction prior to the construction of the new work.
 - b. Do not use any equipment or devices which might damage structures, facilities, or property which are to be preserved and retained.

2. When existing reinforcing is exposed at the surface of removal areas, CONTRACTOR shall burn back the reinforcing bars 2 inches and patch with nonshrink grout, unless noted otherwise.
- B. Walls and Similar Masonry Structures: Remove existing construction as required to clear new construction.

3.02 SALVAGE

- A. OWNER has first right of refusal to all material, piping, and equipment removed.
- B. All equipment, material, and piping, except as specified hereinafter, within the buildings and structures to be demolished and additional items as noted shall be removed by CONTRACTOR. CONTRACTOR shall inspect each structure and determine the type and amount of equipment, materials, and piping to be removed.
- C. All equipment, material, and piping, except as specified hereinafter, within the limits of the demolition and additional items noted to be removed, will become the property of CONTRACTOR if OWNER does not claim under first right of refusal and shall be removed from the project site. Comply with State and local ordinances and regulations for disposing of materials.
- D. The following equipment and materials shall be removed and reused in the new facilities: Primary Digester No. 2 Membrane Cover.

END OF SECTION

SECTION 03 11 00
CONCRETE FORMWORK

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Forms for cast-in-place concrete.
 - 2. Form accessories.
 - 3. Openings for other work.
 - 4. Form stripping.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. ACI 117—Tolerances for Concrete Construction.
- B. ACI 301—Structural Concrete for Buildings.
- C. ACI 318—Building Code Requirements for Reinforced Concrete.
- D. ACI 347—Recommended Practice for Concrete Formwork.
- E. PS1—Construction and Industrial Plywood.

1.03 DESIGN

- A. All formwork shall comply with ACI 347 and ACI 301.
- B. CONTRACTOR shall assume the responsibility for the complete design and construction of the formwork.

1.04 SUBMITTALS

- A. Submit shop drawings in accordance with Section 01 33 00—Submittals for form ties, form coatings, and any other form accessories.
- B. Submit geometry of forms for circular structures.

PART 2—PRODUCTS

2.01 FORMS

- A. Forms shall be of wood, plywood, steel, fiberboard lined, or other approved materials which will produce concrete which meets the specified requirements. The type, size, quality, and shape of all materials of which the forms are made are subject to the review of ENGINEER.

- B. Caution shall be exercised in the use of wood or composition forms to be certain that no chemical reaction will take place which causes a damaging effect on the concrete surface.

2.02 FORM TIES–NONREMOVABLE

- A. Internal wall ties shall contain positive stops at the required wall thickness. The exterior clamp portions of the tie shall be adjustable in length. Ties shall have cones on the water side of water-containing structures. Ties shall also have cones on the exterior side of all structures which have PVC water-stopped construction joints. Ties shall provide a positive disconnection on both ends 1 to 1 1/2 inches inside the finished face of the concrete.
- B. All wall ties used in the placement of structures which have PVC or hydrophilic water-stopped construction joints shall contain integral waterstops. All such ties shall be crimped or deformed in such a manner that the bond between concrete and tie cannot be broken in removal of the outer units. This portion of the tie shall not be removed prior to 24 hours after completion of the concrete placement.
- C. The use of wood spacers and wire ties will not be approved.

2.03 FORM TIES–REMOVABLE

- A. Taper ties which are designed to be removed entirely from the wall may be used with forms designed for this tie type and spacing.
- B. Tie holes shall be plugged with either a neoprene plug, Sure-Plug by Dayton Superior, Inc., or an EPDM rubber plug, X-Plug by Sika Greenstreak, or equal.
- C. Cementitious waterproofing material for patching taper tie holes shall be Hey Di K-11, Xypex Patch-N-Plug, or equal. Taper tie holes above the normal operating water surface shall be patched with mortar mix as specified in Section 03 30 00–Cast-In-Place Concrete for patching tie holes.

2.04 FORM COATINGS

- A. Provide commercial formulation form-coating compounds that will not bond with, stain, nor adversely affect concrete surfaces requiring bond or adhesion, nor impede the wetting of surfaces to be cured with water or curing compounds.

2.05 CHAMFER STRIPS

- A. Provide 3/4-inch by 3/4-inch wood or plastic chamfer strips at all exposed corners, except as noted.

2.06 KEYWAYS

- A. Keyways shall be formed with wood inserts.

PART 3-EXECUTION

3.01 CONSTRUCTION

- A. Forms shall conform to the shape, line, grade, and dimensions as shown on the Drawings. They shall be mortar-tight and sufficiently rigid to prevent displacement or sagging between supports and shall support the loads and pressures without deflection from the prescribed lines. They shall be properly braced or tied together so as to maintain position and shape. Spacing of ties shall be recommended by the tie manufacturer.
- B. Formwork and finished concrete construction shall meet the tolerances specified in ACI 117.
- C. All exposed curved surfaces shall be formed to the continuous surface of the radius specified. Where segmented forms are proposed, a form system which deviates more than 3/8 inch from a circle through pan edges will not be allowed.
- D. Architectural surfaces and surfaces to be fitted with equipment shall be formed to match the shape intended. Where indicated on the Drawings, the form shall be lined with minimum 3/8-inch masonite and shimmed as required.
- E. When forms are placed for successive concrete placement, thoroughly clean concrete surfaces, remove fins and laitance, and tighten forms to close all joints. Align and secure joints to avoid offsets.
- F. At the request of ENGINEER, temporary openings shall be provided at the base of column forms and wall forms and at other points where necessary to facilitate cleaning and observation immediately before depositing concrete.
- G. Provide inserts and provide openings in concrete form work to accommodate work of other trades. Verify size and location of openings, recesses, and chases with the trade requiring such items. Securely support items to be built into forms.
- H. Provide top forms for inclined surfaces where the slope is too steep to place and vibrate concrete.
- I. Bevel wood inserts for forming keyways (except in expansion joints where inserts shall have square edges), reglets, recesses, and the like to allow for ease of removal. Inserts shall be securely held in place prior to concrete placement. Unless otherwise shown, chamfer strips shall be placed in the angles of the forms to provide 3/4-inch bevels at exterior edges and corners of all exposed concrete.
- J. The forms shall be oiled with a field-applied commercial form oil or a factory-applied nonabsorptive liner. Oil shall not stain or impede the wetting of surfaces to be cured with water or curing compounds. The forms shall be coated prior to placing reinforcing steel. Oil on reinforcement will not be permitted.
- K. All form surfaces shall be thoroughly cleaned, patched, and repaired before reusing and are subject to review of ENGINEER.

3.02 FORM REMOVAL

- A. Supporting forms and shoring shall not be removed until the member has acquired sufficient strength to support its own weight and the construction live loads on it.
- B. All form removal shall be accomplished in such a manner that will prevent injury to the concrete.
- C. Forms shall not be removed before the expiration of the minimum times as stated or until the concrete has attained its minimum 28-day design strength as confirmed by concrete cylinder tests, unless specifically authorized by ENGINEER. Wall and Vertical Faces: 24 hours.

END OF SECTION

SECTION 03 20 00
CONCRETE REINFORCEMENT

PART 1—GENERAL

1.01 SUMMARY

- A. Work includes providing complete, in-place, all steel required for reinforcement of cast-in-place concrete as shown on the Drawings.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. Applicable standards listed in this section include, but are not necessarily limited to the following:
 - 1. ACI 315—Manual of Standard Practice for Detailing Reinforced Concrete Structures.
 - 2. ACI 318—Building Code Requirements for Reinforced Concrete.
 - 3. ASTM A615—Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 - 4. ASTM A996—Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcing.
 - 5. CRSI—Manual of Standard Practice.

1.03 SUBMITTALS

- A. Comply with pertinent provisions of Section 01 33 00—Submittals.
- B. Provide complete shop drawings of all material to be furnished and installed under this section:
 - 1. Before fabrication of the reinforcement is begun, CONTRACTOR shall obtain the approval of ENGINEER on reinforcing bar lists and placing drawings.
 - 2. These drawings and lists shall show in detail the number, size, length, bending, and arrangement of the reinforcing. Reinforcing supports shall also be located on the shop drawings.
 - 3. Shop drawings shall be in accordance with ACI 315.

1.04 PRODUCT HANDLING

- A. Delivery:
 - 1. Deliver reinforcement to the job site bundled, tagged, and marked.
 - 2. Use metal tags indicating bar size, lengths, and other information corresponding to markings shown on placement diagrams.
- B. Storage: Store reinforcement at the job site on blocks and in a manner to prevent damage and accumulation of dirt and excessive rust.

PART 2-PRODUCTS

2.01 MATERIALS

- A. Reinforcing bars shall comply with ASTM A615 or A996 Type R, Grade 60. Reinforcing bars required to be welded shall be ASTM A706 low alloy.
- B. Reinforcement supports, including bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement in place shall be:
 - 1. Wire bar-type supports complying with CRSI recommendations, unless otherwise indicated.
 - 2. For exposed-to-view concrete surfaces or where the concrete surface will be exposed to weather or moisture, where legs of supports are in contact with forms, supports with either hot-dipped galvanized or plastic protected legs.

2.02 FABRICATION

- A. General:
 - 1. Fabricate reinforcing bars to conform to required shapes and dimensions with fabrication tolerances which comply with CRSI Manual.
 - 2. In case of fabricating errors, do not rebend or straighten reinforcement in a manner that will injure or weaken the material.
 - 3. Unless otherwise shown on the Drawings, all end hook dimensions shall conform with "ACI Standard Hooks."
- B. Reinforcement with any of the following defects shall be deemed unacceptable and will not be permitted in the work:
 - 1. Bar lengths, depths, and bends exceeding specified fabrication tolerances.
 - 2. Bend or kinks not indicated on Drawings or final shop drawings.
 - 3. Bar with reduced cross section because of excessive rusting or other cause.

PART 3-EXECUTION

3.01 INSPECTION

- A. Examine the substrate, formwork, and the conditions under which concrete reinforcement is to be placed.
- B. Correct conditions detrimental to the proper and timely completion of the work.
- C. Do not proceed until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. General:
 - 1. Comply with the specified standards for details and methods of placing reinforcement and supports.
 - 2. Clean reinforcement to remove loose rust, mill scale, earth, and other materials that reduce or destroy bond with concrete.

B. Placing Reinforcement:

1. All reinforcing shall be placed in accordance with Contract Drawings and with shop drawings stamped and approved by ENGINEER.
2. Position, support, and secure reinforcing against displacement by formwork, construction, or concrete placement operations.
3. Support reinforcing by metal chairs, runners, bolsters, spacers, and hangers as needed.
4. Unless otherwise shown on the Drawings, the reinforcement is to be so detailed and placed as to allow the following concrete protection:
 - a. Two inches of cover where the concrete is placed in forms but is to be exposed to weather, liquid, or the ground.
 - b. One-inch cover in slabs and walls not exposed to weather, liquid, or the ground.
5. Reinforcement shall be positioned within $\pm 3/8$ inch for members with depth to tension reinforcing from compression face less than or equal to 8 inches. Tolerance shall be $\pm 1/2$ inch for members with depth to tension reinforcing from compression face greater than 8 inches. Tolerance on dimension between adjacent bars in slab and wall reinforcing mats shall be 1 inch. Secure against displacement by anchoring at the supports and bar intersections with wire or clips.
6. Bars shall be securely tied at all intersections, except where spacing is less than 1 foot in each direction when alternate intersections shall be tied. To avoid interference with embedded items, bar spacing may be varied slightly if acceptable to ENGINEER. Tack welding of reinforcing will not be permitted.
7. Set wire ties so that twisted ends are directed away from exposed concrete surfaces.
8. If reinforcing must be cut because of openings or embedded items in the concrete, additional reinforcing must be provided adjacent to the opening at least equal in cross sectional area to that reinforcing which was cut, and it shall extend a minimum of 36 bars diameters beyond the opening on each side or as shown on the Drawings. At sumps or depressions in slabs, bars shall be bent and/or extended under sumps or depressions.
9. Wall reinforcing mats shall be secured in a vertical plane by providing clearance from forms with bar supports and by using Z-shaped bars at ± 4 feet on center wired between two mats of steel, spacing and staying both of them. Nails shall not be driven into the forms to support reinforcement and neither shall wire for this purpose come in contact with the forms. Alternate top transverse bars in slab shall be supported by individual bar chairs at approximately 3-foot 0-inch centers. Bottom longitudinal bars shall be supported by continuous bar chairs at approximately 4-foot 0-inch centers.
10. If carrier bars are to be used, CONTRACTOR shall provide reinforcing bars for this purpose in addition to the reinforcing called for by the Drawings and Specifications.

C. Reinforcement Supports:

1. Strength and number of supports shall be sufficient to carry reinforcement.
2. Do not place reinforcing bars more than 2 inches beyond the last leg of any continuous bar support.
3. Do not use supports as bases for runways for concrete-conveying equipment and similar construction loads.

D. Splices:

1. Provide standard reinforcement splices by lapping ends, placing bars in contact, and tightly wire tying.
2. Lap splices in reinforcing shall be provided as shown on the Drawings. Where lap splice lengths are not shown on the Drawings, provide Class B, Category 1 lap splices in accordance with ACI 318.
3. Adjacent splices of tangential bars in circular slabs and horizontal bars in circular walls shall be staggered a minimum of one full lap splice length or 3 feet, whichever is greater,

unless otherwise shown. Stagger dimension shall be measured from center to center of lap splices.

4. For circular walls, horizontal bar lap splices shall not coincide in vertical arrays more frequently than every third bar.
- E. Minimum Reinforcing: Where reinforcing is not shown, provide a minimum of No. 4 at 8-inch centers each way in members 10 inches or less in thickness and No. 5 at 12-inch centers each way in each face in members greater than 10 inches thick.

END OF SECTION

SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. All cast-in-place concrete as shown except as noted otherwise.
 - 2. Hydrophilic waterstops, expansion joint fillers, bonding agents, patching mortars, curing compounds, nonshrink grout, and other related items and accessories.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. ACI 211.1—Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
- B. ACI 301—Specifications for Structural Concrete.
- C. ACI 304R—Guide for Measuring, Mixing, Transporting, and Placing Concrete.
- D. ACI 305R—Guide to Hot Weather Concreting.
- E. ACI 306R—Guide to Cold Weather Concreting.
- F. ACI 308—Specification for Curing Concrete.
- G. ACI 309—Guide for Consolidation of Concrete.
- H. ACI 318—Building Code Requirements for Structural Concrete and Commentary.
- I. ASTM C31—Standard Practice for Making and Curing Concrete Test Specimens in the Field.
- J. ASTM C33—Standard Specification for Concrete Aggregates.
- K. ASTM C39—Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- L. ASTM C40—Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.
- M. ASTM C88—Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
- N. ASTM C94—Standard Specification for Ready-Mixed Concrete.
- O. ASTM C143—Standard Test Method for Slump of Hydraulic-Cement Concrete.
- P. ASTM C150—Standard Specification for Portland Cement.

- Q. ASTM C156—Standard Test Method for Water Loss (from a Mortar Specimen) Through Liquid Membrane-Forming Curing Compounds for Concrete.
- R. ASTM C172—Standard Practice for Sampling Freshly Mixed Concrete.
- S. ASTM C231—Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
- T. ASTM C260—Standard Specification for Air-Entraining Admixtures for Concrete.
- U. ASTM C309—Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- V. ASTM C494—Standard Specification for Chemical Admixtures for Concrete.
- W. ASTM C595—Standard Specification for Blended Hydraulic Cements.
- X. ASTM C618—Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
- Y. ASTM C652—Standard Specification for Hollow Brick (Hollow Masonry Units Made From Clay or Shale).
- Z. ASTM D994—Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
- AA. ASTM D1752—Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with Section 01 33 00—Submittals.
- B. Submit the following information:
 - 1. Gradation of fine and coarse aggregate—ASTM C33.
 - 2. Specific gravity and dry rodded density of each aggregate.
 - 3. Test of deleterious substances in fine and coarse aggregate—ASTM C33.
 - 4. Design mix of each individual concrete mix to be used.
 - 5. Previous test results or trial batch results with 7- and 28-day compressive strengths for each concrete mix proposed.
 - 6. Certified mill test results for cement identifying brand, type, and chemistry of cement to be used.
 - 7. Brand, type, principal ingredient, and amount of each admixture to be used.
- C. It is important that the above data be submitted to ENGINEER well in advance of anticipated concreting operations to avoid any delay in construction.

PART 2-PRODUCTS

2.01 CEMENT

- A. Cement shall be Portland cement Type I/II conforming to ASTM C150 or Portland limestone cement Type IL conforming to ASTM C595. All cement shall be the product of one reputable manufacturer and mill.
- B. Cement shall be stored in a dry, weathertight, properly ventilated structure with the floor raised not less than 1 foot above the ground.

2.02 FLY ASH

- A. All fly ash used as an admixture in Portland cement or Portland limestone cement concrete shall be Class C or F conforming to the requirements of ASTM C618.

2.03 AGGREGATE

- A. All aggregates shall be washed and shall consist of natural sand, gravel, or crushed rock and shall have clean, hard, durable, uncoated grains of strong minerals. The amounts of deleterious substances present in the fine and coarse aggregate expressed in percentages by weight shall not exceed the following:

Deleterious Substance	Aggregate	
	Fine	Coarse
Clay Lumps and Friable Particles	3.0	3.0
Coal and Lignite	0.5	0.5
Mineral finer than No. 200 sieve	3.0	
Soft Fragments	3.0	3.0
Chert*	---	5.0
Sum of Chert and Clay Lumps		5.0

* Material classified as chert and having a bulk specific gravity of less than 2.45. The percentage of chert shall be determined on the basis of the weight of chert in the sample retained on a 3/8-inch sieve divided by the weight of the total sample.

- B. The combined amount of all deleterious substances in an aggregate shall not exceed 5% of the weight of the aggregate.
- C. If requested by ENGINEER, sodium sulfate soundness tests (ASTM C88) shall be performed on the aggregate. When the aggregate is subjected to 5 cycles, the weight loss shall not exceed 12%. Samples of proposed aggregates shall be submitted to an independent laboratory for testing in advance of concrete work. All testing shall be performed in accordance with ASTM C33. Certified test results shall be submitted to ENGINEER confirming that aggregate complies with all stated specifications. Report shall identify source of aggregate and absorbed water.
- D. Fine aggregate shall be well-graded from coarse to fine and shall conform to the following requirements:

Percentage by Weight	
Passing 3/8-inch sieve	100
Passing No. 4 sieve	95-100
Passing No. 8 sieve	80-100
Passing No. 16 sieve	50-85
Passing No. 30 sieve	25-60
Passing No. 50 sieve	5-30
Passing No. 100 sieve	0-10

- E. Gradation of fine aggregate shall be reasonably uniform and not subject to the extreme percentages of gradation specified above. The fineness modulus shall be not less than 2.3 or more than 3.1, nor shall the fineness modulus of any sample vary by more than +0.20 from the fineness modulus of the representative sample used in proportioning the concrete.
- F. If requested by ENGINEER, fine aggregate shall be subjected to the color-metric test for organic impurities (ASTM C40) and shall not produce a color darker than Figure 1, unless they pass the mortar strength test. Aggregate producing color darker than Figure 2 shall not be used in any event.
- G. Coarse aggregate shall be well-graded from coarse to fine, and when tested by laboratory sieves having square openings, shall conform to the following requirements:

	Percentage by Weight Aggregate
	3/4-Inch Stone
Passing 2-inch sieve	---
Passing 1 1/2-inch sieve	---
Passing 1-inch sieve	100
Passing 3/4-inch sieve	90-100
Passing 3/8-inch sieve	20-55
Passing No. 4 sieve	0-10
Passing No. 8 sieve	0-5

- H. Aggregates must be allowed to drain for at least 12 hours before being used. The ground upon which aggregates are stored must be hard, firm, well-drained, and free from all vegetable matter. Various sizes of aggregates must be stored separately, and if they have become contaminated or merged with each other, they shall not be used.

2.04 WATER

- A. Water used in mixing concrete shall be clean and free from injurious amounts of oil, alkali, organic matter, or other deleterious substances.

2.05 ADMIXTURES

- A. Water Reducing Admixture shall be Master Pozzolith® 200 by Master Builders Solutions, Daracem 19 by Grace, or equal. Water reducing admixture shall conform to ASTM C494, Type A and Type F. Water reducing admixture shall not reduce durability, shall increase strength 10%, and shall not affect bleeding characteristics over reference mix.

- B. Air-Entraining Admixture shall be equal to MasterAir® AE 90 by Master Builders Solutions, Darex by Grace Construction Products, or equal. Air-entraining admixture shall conform to ASTM C260.
- C. No other admixture will be allowed without written approval of ENGINEER. All admixture shall be compatible with cement, aggregate, and water used.

2.06 PROPORTIONING

- A. The proportions of aggregate to cement shall be such as to produce a workable mixture that can be thoroughly compacted and that will work readily in the forms and around reinforcement without permitting materials to segregate or excess water to collect on the surfaces. The combined aggregates shall be such that when separated on the No. 4 sieve, the weight passing the sieve shall not be less than 30% nor greater than 50%.
- B. Concrete of various classes shall have the following maximum water/cement or water/(cement + fly ash) ratio minimum compressive strengths at 28 days and minimum cement and fly ash contents:

Class	Maximum Water/ Cement or Water/ (Cement+Fly Ash)	Minimum 28 Day Strength-Pounds per Square Inch	Cement Content-Pounds per Cubic Yard	Fly Ash- Pounds per Cubic Yard	
				Type C	Type F
A	0.45	4,000	564	---	---
A-FA	0.45	4,000	480	110	125

- C. Concrete shall be Class A or Class A-FA concrete.
- D. All concrete mixes shall be designed for a strength of 15% above that specified to allow for job variations. All mixes shall be designed in accordance with ACI 211.1 by a qualified concrete engineer or qualified laboratory technician. Required materials test data shall be submitted with design mixes for review and approval by ENGINEER. Mix computations shall be submitted if requested by ENGINEER.
- E. The slump for all concrete shall be 3 inches and concrete with a slump within the range of 2 to 3 1/2 inches will be acceptable, unless otherwise stated.
- F. A water-reducing admixture shall be used in all concrete. A qualified representative of the manufacturer shall be available to assist in proportioning the concrete, advise on the proper addition of the admixture to the concrete, and advise on adjustments of concrete proportions to suit job conditions.
- G. An air-entraining admixture shall be used in all concrete except as noted. Air content shall be tested by the pressure method as outlined in ASTM C231 and shall be between 4% to 7% by volume. An air-entraining admixture is not required for concrete patching and for concrete floors, equipment pads, and supports in interior heated buildings where the concrete will be protected from freezing during and after construction.
- H. CONTRACTOR shall submit to ENGINEER concrete cylinder compressive strength results from previous projects for the same concrete mixes proposed on the current project. If this information is not available, one cubic yard trial batches of each individual mix proposed for use shall be made prior to use in the work. Four test cylinders shall be made for each trial

batch, two to be tested at 7 days and two at 28 days. The trial batches shall be made preceding actual placement operations so that the results of the 7-day tests can be obtained. All costs for material, equipment, and labor incurred during design of concrete mixes shall be borne by CONTRACTOR.

- I. All aggregates shall be measured by weight. The concrete mixer is to be equipped with an automatic water-measuring device that can be adjusted to deliver the desired amount of water.

2.07 WATERSTOPS

- A. Hydrophilic waterstop shall be a flexible hydrophilic natural rubber strip composed of nonvulcanized rubber and urethane polymer hydrophilic agent creating a moisture-activated, self-healing waterproofing compound.
- B. Hydrophilic waterstop shall be Adeka Ultraseal, or equal, products as follows—Construction Joints:
 - 1. Wall/slab thickness greater than 9 inches with double mat of reinforcing: MC-2010MN (3/4-inch by 3/8-inch) with embedded stainless steel wire mesh for expansion control. The waterstop shall develop a minimum of 400 psi expansion pressure and withstand a minimum 150-foot hydrostatic head. Expansion amount shall not exceed 120%.
 - 2. Wall/slab thickness between 4 inches and 9 inches with 1-inch minimum cover and single or double mat of reinforcing: KBA-1510FP (9/16 inch by 3/8 inch). Expansion amount shall not exceed 30%.
 - 3. All waterstop shall be placed in a bead of P-201 and anchored to the concrete surface as recommended by the manufacturer.

2.08 JOINT FILLER

- A. Expansion joints shall have standard 1/2-inch-thick cork expansion joint filler, W. R. Meadows, or equal, meeting ASTM D1752—Type II.

2.09 BONDING AGENT

- A. Bonding agent for bonding new concrete to existing concrete at construction joints shall be a liquid latex product meeting ASTM C1059, Type II. Acceptable products include Euroweld 2.0 by Euclid Chemical, Acrylic Bonding Agent J40 by Dayton Superior, or equal.

2.10 PATCHING ADDITIVE

- A. Acceptable manufacturers include MasterEmaco® A 660 by Master Builders Solutions, Sonocrete by Sonneborn Contech Co., or equal.

2.11 NONSHRINK GROUT

- A. Acceptable manufacturers include Dayton Superior, Master Builders Solutions, or equal. Grout shall be nonshrink, nonmetallic and shall achieve a strength of 7,500 psi in 28 days.

PART 3-EXECUTION

3.01 MIXING

- A. Ready-mixed concrete shall be batched, mixed, and delivered in accordance with ASTM C94 and ACI 304R. In general, concrete shall be mixed 50 revolutions at plant, 20 upon arrival at site, and 20 each time water is added; maximum of 110 revolutions at mixing speed. Concrete shall be delivered and discharged within 1 1/2 hours or before the drum has revolved 300 times after introduction of water to the cement and aggregates or the cement to the aggregates. Truck mixers shall be equipped with drum revolution counters. In no event shall concrete which has taken its initial set be allowed to be used. Retempering of concrete is not permitted.
- B. A representative of ENGINEER may be at the batching plant periodically to observe the batching and mixing.
- C. No water shall be added on the job unless required by CONTRACTOR and with the knowledge of ENGINEER; the amount of water, if added, shall be recorded on all copies of the delivery tickets. If water is added, CONTRACTOR shall verify that the required water-cement ratio is not exceeded.
- D. Concrete shall have a temperature not less than 60°F nor more than 80°F as delivered to the jobsite.
- E. With each load of concrete, CONTRACTOR shall obtain delivery tickets and shall make these tickets available for review by ENGINEER. Delivery tickets shall provide the following information:
 - 1. Date.
 - 2. Name of ready-mix concrete plant, job location, and CONTRACTOR.
 - 3. Type of cement and admixtures, if any.
 - 4. Specified cement content in sacks per cubic yard of concrete and approved concrete mix number or designation.
 - 5. Amount of concrete in load, in cubic yards.
 - 6. Water-cement ratio.
 - 7. Water added at job, if any.
 - 8. Truck number and time dispatched.
 - 9. Number of mixing drum revolutions.
- F. For job-mixed concrete, all concrete materials shall be mixed in a machine batch mixer for at least 1 1/2 minutes after all ingredients are in the mixer and shall continue until there is a uniform distribution of the materials and the mass is uniform in color and homogeneous. The mixer shall not be loaded beyond the capacity given by the manufacturer and shall be rotated at the speed recommended by the manufacturer. The mixer is to be provided with positive timing device that will positively prevent discharging the mixture until the specified mixing time has elapsed.

3.02 JOINTS

- A. CONTRACTOR shall place all joints as shown on the Drawings or specified herein. If acceptable to ENGINEER, CONTRACTOR may, at its own expense, place construction joints in addition to and at places other than those shown on the Drawings. Unless otherwise shown, all joints shall be straight, truly vertical or horizontal, and proper methods shall be employed to obtain this result.

- B. Where construction joints are not shown on the Drawings or specified elsewhere, CONTRACTOR shall provide construction joints in walls as follows: Vertical construction joints at 60 feet on center maximum but not more than 15 feet from corners or intersections.
- C. Immediately after completion of the first pour at a joint, the concrete surface, reinforcement, and waterstop projecting beyond the joint shall be thoroughly cleaned and laitance removed. The waterstops shall not be disturbed after the concrete in the first pour at a joint has set. Concrete around waterstops shall be thoroughly compacted by hand spading and vibrating. Immediately before the second pour, all extraneous matter shall be removed from the joint, the waterstop and steel cleaned, and the surface thoroughly wetted.
- D. Concrete at all joints shall have been in place at least 48 hours before abutting concrete is placed. At least two hours must elapse after depositing concrete in columns or walls before depositing in beams, girders, or slab supported thereon. Beams, girders, brackets, column capital, and haunches shall be considered as part of the floor system and shall be placed integrally therewith.

3.03 WATERSTOPS

- A. Hydrophilic waterstop shall be provided at all construction joints in liquid holding tanks and at joints between new and existing concrete. Waterstop shall be placed as shown on Drawing details, if any, and in accordance with the manufacturer's recommendations. Where not shown on the Drawings, waterstops shall be approximately centered in walls and slabs.

3.04 BONDING TO EXISTING CONCRETE

- A. When placing new concrete adjacent to existing concrete, the existing concrete shall be thoroughly roughened, cleaned, and saturated with water 24 hours before pouring new concrete. Existing concrete is defined as concrete more than six months old. At time of new pour, remove any standing water and apply bonding agent. Bonding agent shall be applied in accordance with manufacturer's recommendations.

3.05 PATCHING EXISTING CONCRETE

- A. When patching existing concrete, remove poor concrete until firm hard concrete is exposed; roughen and clean surface of the existing concrete, clean any exposed reinforcing bars, and pour new concrete. Concrete finish shall match existing concrete. New concrete shall be 4,000 psi 28-day strength mixed with patching additive, mixed according to manufacturer's instructions. Concrete shall not be air-entrained.

3.06 EMBEDDED ITEMS IN CONCRETE

- A. All sleeves, inserts, anchors, and embedded items required for adjoining work or for its support shall be placed prior to concreting.
- B. All contractors whose work is related to the concrete or must be supported by it shall be given ample notice and opportunity to introduce and/or furnish embedded items before the concrete is placed.
- C. Embedded items shall be positioned accurately and supported against displacement. Reinforcing bars shall clear embedded items a minimum of 2 inches.

3.07 PLACING CONCRETE

- A. Before placing concrete, all equipment, forms, ground, reinforcements, and other surfaces with which the concrete will come in contact are to be thoroughly cleaned of all debris, ice, and water. Ground shall be wetted prior to placement of concrete on it.
- B. After reinforcement is placed and before concrete is placed over it, ENGINEER shall be allowed sufficient time to observe the reinforcing.
- C. Unless otherwise authorized by ENGINEER, all concrete shall be placed in the presence of ENGINEER.
- D. Concrete shall be conveyed from the mixer to the place of final deposit as rapidly as practicable by methods that will prevent the segregation or loss of materials. Chuting for conveying purposes must be accomplished in such a manner as to prevent segregation or loss of materials. Receiving hoppers shall be installed at the chute discharge and at no point in its travel from the mixer to place of final deposit shall the concrete pass through a free vertical drop of more than 3 feet. Elephant trunks or tremies shall be used in all wall pours to prevent coating of forms and reinforcing bars.
- E. Care shall be taken to avoid an excess of water on the concrete surface. Excess water shall be drained or otherwise removed from the surface. Dry cement or a mixture of cement and sand shall not be sprinkled directly on the surface to absorb water.
- F. Concrete in wall and beam pours shall be deposited in approximately horizontal layers not to exceed 18 inches in thickness. Each layer shall be well worked into the preceding layer while both layers are still soft.
- G. Concrete shall be deposited as nearly as practicable in its final position to avoid segregation from rehandling or flowing. The maximum allowable lateral movement of the concrete after being deposited is 3 feet. Once concreting is started, it shall be carried on as a continuous operation until the placing of the section or panel is completed.
- H. All concrete shall be placed with the aid of mechanical vibrating equipment in accordance with ACI 309. In congested areas, vibration shall be supplemented by hand spading adjacent to the forms. Vibration should secure the desired results within 5 to 15 seconds at intervals of 18 inches apart maximum. The vibrator shall penetrate the preceding layer of concrete. Vibrators shall have a frequency of not less than 10,000 impulses per minute when in operation submerged in concrete.
- I. A sufficient number of spare vibrators shall be kept in ready reserve to provide adequate vibration in case of breakdown of those in use.

3.08 MOIST CURING

- A. All concrete shall be maintained in a moist condition for at least 7 days after being deposited except that for high-early strength concrete, a 3-day period will be sufficient. Moist curing shall be accomplished by one of the following methods:
 - 1. Wood forms left in place and kept wet at all times. If wood forms are not going to be kept wet or if metal forms are used, they shall be removed as soon as practicable and other methods of moist curing shall be started without delay.
 - 2. Use of a curing compound conforming to ASTM C309, Type I as approved by ENGINEER. Curing compound shall be applied at a uniform rate as indicated by the manufacturer sufficient to comply with the requirements of the test water retention of ASTM C156. Curing compound applied to vertical concrete surfaces after forms are

removed shall be specially adapted to provide required coverage on the vertical surface. On nonformed surfaces, the curing compound shall be applied immediately after the disappearance of the water sheen after finishing of the concrete. Curing compound shall not be used on concrete surfaces that are to be painted, receive ceramic tile or resilient flooring, or be waterproofed. Care shall be taken not to get curing compound on construction joints, reinforcing steel, and other surfaces against which new concrete will be poured.

3. Use of plastic film. Plastic film shall have a minimum thickness of 4 mils. It shall be placed over the wet surface of the fresh concrete as soon as possible without marring the surface and shall be weighted so that it remains in contact with all exposed surfaces of the concrete. All joints and edges shall be lapped and weighted. Any tears in the film shall be immediately repaired.
 4. Application of wet coverings weighing 9 ounces per square yard such as burlap, cotton mats, or other moisture-retaining fabrics. The covering system shall include two layers and shall be kept continuously moist so that a film of water remains on the concrete surface throughout the curing period.
 5. Use of an approved waterproof curing paper. Edges of adjacent sheets shall be overlapped several inches and tightly sealed.
 6. Ponding of water or continuous sprinkling of water is permitted. Sprinkling at intervals will not be permitted.
 7. Construction joints shall be moist cured by one of the methods listed above except by Method "2."
- B. The use of moist earth, sand, hay, or another method that may discolor hardened concrete will not be permitted.

3.09 HOT WEATHER CONCRETING

- A. When the atmospheric temperature exceeds 80°F during concrete placement, this section and ACI 305 shall apply in addition to all other sections of the specifications.
- B. The temperature of the delivered concrete shall not exceed 85°F.
- C. Care shall be exercised to keep mixing time and elapsed time between mixing and placement at a minimum. Ready-mix trucks shall be dispatched so as to avoid delay in concrete placement, and the work shall be organized to use the concrete promptly after arrival at the jobsite.
- D. The subgrade, forms, and reinforcing shall be sprinkled with cool water just prior to placement of concrete. Prior to placing concrete, there shall be no standing water or puddles on the subgrade.
- E. If approved by ENGINEER, an admixture for retarding the setting of the concrete may be used.
- F. Exposed concrete surfaces shall be carefully protected from drying. Continuous water curing is preferred. Curing compounds shall be white pigmented.

3.10 COLD WEATHER CONCRETING

- A. Conditions of this section shall apply, in addition to all other sections of the specifications, when placing concrete in cold weather. Cold weather is defined as a period when, for more than three successive days, the average daily temperature drops below 40°F. When temperatures above 50°F occur during more than half of any 24-hour period, the period will no longer be regarded as cold weather. The average daily temperature is the average of the

highest and lowest temperature during the period from midnight to midnight. Cold weather concreting shall conform to all requirements of ACI 306.1, except as modified by the requirements of these specifications.

- B. Detailed procedures for the production, placement, protection, curing, and temperature monitoring of concrete during cold weather shall be submitted to ENGINEER. Cold weather concreting shall not begin until these procedures have been reviewed for conformance with ACI 306.1.
- C. All concrete materials, forms, ground, mixing equipment, and other surfaces with which the concrete is to come in contact shall be free from frost, and the temperature of contact surfaces shall be 35°F or above. Ground upon which concrete is to be placed shall not be frozen at any depth.
- D. The mixing water and aggregates shall be heated and when entering the mixer shall have temperatures not exceeding 175°F and 80°F, respectively. Concrete temperature as mixed shall not exceed 80°F and shall typically be between 55°F and 70°F. Concrete, when placed in the forms, shall have a temperature of not less than 50°F.
- E. Freshly placed concrete shall be protected by adequate covering, insulating, or housing and heating. If heating is used, ambient temperature inside the housing shall be maintained at a minimum of 70°F for 3 days or 50°F for 5 days. The maximum ambient temperature during curing shall not exceed 80°F. If insulating methods are used, recommendations contained in ACI 306R shall be followed. Surface temperature shall be maintained at 50°F for 7 days. After the curing period, the temperature of the concrete shall be reduced uniformly at a rate not to exceed 40°F per 24 hours until outside air temperature is reached. Heating of enclosure shall continue if it is anticipated that the outside air temperature will drop more than 20°F in the next 24 hours. The concrete temperature shall be obtained by attaching a thermometer provided by CONTRACTOR to the concrete surface. Concrete shall be kept moist.
- F. If heating is used, the housing shall be constructed weathertight and shall be constructed in a manner that will provide uniform air circulation and air temperatures over the complete concrete area that is being cured. Special attention shall be given to the edges and ends of a concrete pour with the housing extending at least 5 feet beyond any concrete surface being protected. The housing shall be in place and heat applied within 2 hours after concrete placement.
- G. Heating may be by steam or hot air. Heaters shall be vented to outside of the housing. Open burning salamanders will not be permitted. Heating devices shall not be placed so close to the concrete as to cause rapid drying or discoloration from smoke.
- H. If heating is used, CONTRACTOR shall provide sufficient 24-hour inspection of the heaters to provide compliance with the above-specified temperature requirements during the curing period. CONTRACTOR shall provide maximum-minimum thermometers for ENGINEER's use.
- I. The use of calcium chloride, salts, or other chemical admixtures for the prevention of freezing is prohibited.
- J. Salts or other deleterious materials shall not be used on temporary or permanent structures above concrete surfaces that are being placed, finished, or cured.

3.11 FINISHING

A. Flat Work:

1. Floated Finish: Place, consolidate, strike off, and level concrete eliminating high spots and low spots. Do not work concrete further until it is ready for floating. Begin floating with a hand float, a bladed power float equipped with float shoes, or a powered disk float when the bleed water sheen has disappeared and the surface has stiffened sufficiently to permit the operation. Immediately refloat the slab to a uniform texture.
2. Light Troweled Finish: Float concrete surface, then power trowel the surface. Hand trowel the surface smooth and free of trowel marks.
3. Hard Troweled Finish: Float concrete surface, then power trowel the surface. Hand trowel the surface smooth and free of trowel marks. Continue hand troweling until a ringing sound is produced as the floor is troweled.
4. Tolerance for concrete floors shall be 1/4 inch within 10 feet in any direction. Straight edge shall be furnished by CONTRACTOR.
5. Broom or Belt Finish: Immediately after concrete has received a floated finish, give the concrete surface a coarse transverse scored texture by drawing a broom or burlap belt across the surface.
6. The above finishes shall be used in the following locations:
 - a. Float Finish: Surface to receive roofing, waterproofing, or sand bed terrazzo.
 - b. Light Troweled Finish: Submerged tank slabs.
 - c. Hard Troweled Finish: Building floors.
 - d. Broom or Belt Finish: Exterior slabs, sidewalks, tops of walls, and tank slabs to receive grout topping.

B. Formed Surfaces:

1. Within 2 days after removing forms and prior to application of a curing compound, all concrete surfaces shall be observed and any poor joints, voids, stone pockets, or other defective areas shall be patched at once before the concrete is thoroughly dry. Defective areas shall be chipped away to remove all loose and partially bonded aggregate. The area shall be thoroughly wetted and filled with as dry as practical mortar mix placed to slightly overfill the recess. Mortar shall include a bonding agent. After partial set has taken place, the excess mortar shall be removed flush with the surface on the concrete using a wood float. All patching shall be cured, protected, and covered as specified for concrete. All cracks, leaks, or moist spots that appear shall be repaired. No extra compensation will be allowed CONTRACTOR for such work.
2. The exterior or removal portion of nonremovable ties shall be removed with the use of a special tool designed for this purpose. Cutting or chipping of concrete to permit removal of exterior portion will not be permitted.
3. For nonremovable ties, tie rod holes left by the removal of the exterior portion of the tie and cone shall be thoroughly wetted and filled by ramming with as dry as practical mortar mix in such a manner such that it completely fills the hole. Mortar shall include a bonding agent. All patching shall be cured, protected, and covered as specified for concrete. The holes are to be filled immediately after removal of the exterior portion of the tie.
4. Holes left by removable ties shall be filled by installing a neoprene plug near the center of the wall. The balance of the hole shall be filled with mortar as specified above to within 1 inch of the face of the wall. The remainder of the hole shall be filled with a waterproofing compound.
5. All finished or formed surfaces shall conform accurately to the shape, alignment, grades, and sections as shown or prescribed by ENGINEER. All surfaces shall be free from fins, bulges, ridges, offsets, honeycombing, or roughness. All sharp angles, where required, shall be rounded or beveled. Any formed surface to be painted shall be free of any material that will be detrimental to the paint. The surface of the concrete shall be given one of the following finishes immediately after form stripping:

- a. Finish A shall be referred to as a sack finish. Surfaces shall be free of contaminants prior to sacking. After wetting the surface, a grout shall be rubbed in using a rubber float or burlap. After the grout hardens sufficiently, it shall be scraped from the surface with the edge of a steel trowel without disturbing the grout in the air holes. After further drying, the surface shall be rubbed with burlap to remove all surface grout. The entire surface shall be finished to secure a continuous, hard, dust-free uniform texture surface free from pinholes and other minor imperfections. Finish A will be required for all unpainted surfaces, interior surfaces of equipment rooms, operation areas, and permanently exposed vertical surfaces. Where steel-faced forms are used to form walls, the portion of wall to receive the sack finish shall first be roughened by brush blasting or other acceptable method to achieve a texture similar to 40 to 60 grit sandpaper.
 - b. Finish B shall be the same as Finish A, except that the final burlap rubbing may be omitted, providing the steel trowel scraping removes the loose buildup from the surface. Finish B shall be provided for waterproof- and moistureproof-coated surfaces.
 - c. Finish C shall be referred to as a finish that has surface imperfections less than 3/8 inch in any dimension. Surface imperfections greater than 3/8 inch shall be repaired or removed and the affected areas neatly patched. Finish C or smoother shall be provided for interior surfaces of wet wells, tanks, and channels from 1 foot below minimum water surfaces and down and otherwise unfinished interior surfaces.
 - d. Finish D shall be the finish for surfaces that may be left as they come from the forms, except that tie holes shall be plugged and defects greater than 1/2 inch in any dimension shall be repaired. Finish D shall be provided for surfaces to be buried or covered by other construction such as masonry veneer.
- C. All precautions shall be taken to protect the concrete from stains or abrasions, and any such damage shall be removed or repaired under this Contract.

3.12 LOADING OF CONCRETE STRUCTURES

- A. No concrete structure or portion thereof shall be loaded with its design load until the concrete has obtained its specified 28-day compressive strength. This shall include but not be limited to vertical live load, equipment loading, water loading, groundwater loading, and backfill load. Concrete strength at time of loading shall be determined by testing field-cured concrete cylinders.
- B. Extreme care shall be taken so that construction loads do not exceed design loading of the structure.

3.13 NONSHRINK GROUT

- A. Nonshrink, nonmetallic grout shall be used for filling recesses and pockets left for equipment installation and for setting of base plates. The material used shall be approved by ENGINEER. Store, mix, and place the nonshrinking compound as recommended by the manufacturer. The minimum compressive strength shall be 5,000 psi at age 7 days and 7,500 psi at age 28 days.

3.14 TESTING AND SAMPLING

- A. The following tests of fresh concrete shall be performed by CONTRACTOR. CONTRACTOR shall prepare, protect, transport, and have tested all cylinders at its expense.
 - 1. Sampling of concrete for slump tests, air tests, temperature tests, and for making concrete test cylinders shall be performed in accordance with ASTM C172.

2. Cylinders:
 - a. Three test cylinders shall be made for each pour less than 25 cubic yards, four test cylinders shall be made for each pour between 25 and 100 cubic yards, and eight test cylinders shall be made for each pour in excess of 100 cubic yards. Each concrete mix shall be represented by at least four cylinders for the entire job. Concrete for cylinders shall be collected near the middle of the load and/or as requested by ENGINEER.
 - b. Cylinders shall be made and tested in accordance with ASTM C31 and ASTM C39, respectively. The cylinders must be kept moist and at temperatures between 60°F and 80°F and shall remain undisturbed and stored in a location free from vibration. In hot weather, the cylinders shall be covered with wet burlap and stored in a shaded area. It is CONTRACTOR's responsibility to provide a suitable protected location for storing cylinders on the jobsite.
 - c. After 24 hours, the cylinders shall be transferred to an independent testing laboratory acceptable to OWNER. The cylinders shall be packed in sawdust or other cushioning material for transit to avoid any bumping or jarring of the cylinders.
 - d. Cylinders shall be broken at 7 and 28 days or as requested by ENGINEER. Test results shall be transmitted immediately and directly to ENGINEER and OWNER. Test data shall include date and location of pour and concrete mix used.
 3. Slump Test: CONTRACTOR shall make one slump test near the beginning of all pours with two tests being made for all pours in excess of 25 yards or as requested by ENGINEER. Slump tests shall conform to ASTM C143.
 4. Air Test:
 - a. When air-entrained concrete is used, the air content shall be checked by CONTRACTOR near the beginning of all pours with at least two checks being made for all pours in excess of 25 cubic yards, or as requested by ENGINEER.
 - b. The air contents shall be checked using the pressure method in accordance with ASTM C231. The pocket-sized alcohol air indicator shall not be used unless it is first used in conjunction with the pressure method test.
- B. All costs of additional testing and sampling of fresh or hardened concrete needed because of suspected or actual violation of the specifications shall be borne by CONTRACTOR.

3.15 RECORDS

- A. A record is to be kept of all concrete work. The record shall include the date, location of pour, concrete mix, slump, air content, test cylinder identification, concrete temperature, and ambient air temperature. In addition, for cold weather concreting the record shall include the daily maximum-minimum thermometer readings of all thermometers during the entire curing period for all concrete pours. OWNER will keep this record, and CONTRACTOR shall assist in obtaining needed information.

3.16 CONCRETE REMOVAL AND PATCHING

- A. All areas disturbed as a result of concrete removal or repair shall be patched as specified in Bonding to Existing Concrete.

END OF SECTION

SECTION 04 01 20

MASONRY RESTORATION AND CLEANING

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Repointing mortar joints.
 - 2. Replacement of damaged masonry.
- B. Related sections and divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. ACI 530/ASCE 5/TMS 402—Building Requirements for Masonry Structures; American Concrete Institute International; 2002.
- B. ACI 530.1/ASCE 6/TMS 602—Specification for Masonry Structures; American Concrete Institute International; 2002.
- C. IMIAWC (CW)—Recommended Practices & Guide Specifications for Cold Weather Masonry Construction; International Masonry Industry All-Weather Council; 1993.
- D. IMIAWC (HW)—Recommended Practices & Guide Specifications for Hot Weather Masonry Construction; International Masonry Industry All-Weather Council; current edition.

1.03 SUBMITTALS

- A. Product Data: Provide data on mortar mixes.

1.04 QUALITY ASSURANCE

- A. Comply with provisions of ACI 530/ASCE 5/TMS 402 and ACI 530.1/ASCE 6/TMS 602, except where exceeded by requirements of the Contract Documents.
- B. Restorer: Company specializing in masonry restoration with minimum 5 years of documented experience on historic masonry buildings.

1.05 PREINSTALLATION MEETING

- A. Require attendance of parties directly affecting work of this section.
- B. Review conditions of installation, installation procedures, and coordination with related work.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Cold Weather Requirements: Comply with recommendations of IMIAWC (CW).

- B. Hot Weather Requirements: Comply with IMIAWC Recommended Practices and Guide Specifications for Hot Weather Masonry Construction.

1.07 PROJECT CONDITIONS

- A. Perform repointing after cleaning masonry surfaces.

PART 2-PRODUCTS

2.01 CLEANING MATERIALS

- A. Cleaning Agent: Detergent, solvent cleaner, or acid-solution type.

2.02 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150, Type 1; color as required to match existing mortar.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Mortar Aggregate: ASTM C 144.
- D. Pigments for Colored Mortar: Iron or chromium oxides with demonstrated stability and colorfastness.
- E. Sand: ASTM C 144.
- F. Water: Clean and potable.
- G. Additives: None permitted.

PART 3-EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces to be cleaned and restored are ready for work of this section.

3.02 PREPARATION

- A. Protect surrounding elements from damage because of restoration procedures.
- B. Carefully remove and store removable items located in areas to be restored; reinstall upon completion.
- C. Separate areas to be protected from restoration areas using means adequate to prevent damage.
- D. Cover existing landscaping with tarpaulins or similar covers.
- E. Mask immediately adjacent surfaces with material that will withstand cleaning and restoration procedures.

3.03 REBUILDING

- A. Cut out damaged and deteriorated masonry with care in a manner to prevent damage to any adjacent remaining materials.
- B. Cut away loose or unsound adjoining masonry or mortar to provide firm and solid bearing for new work.
- C. Mortar Mix: ASTM C 270, using the Proportion Specification. Colored to match existing work.
- D. Exterior, loadbearing masonry: Type N.
- E. Mixing: Use mechanical batch mixer and comply with referenced standards.
- F. Anchors, ties, reinforcing, stone cramps and dowels, and flashings shall be correctly located and built in.
- G. Install built-in masonry work to match and align with existing, with joints and coursing true and level, faces plumb and in line. Build in all openings, accessories and fittings.

3.04 REPOINTING

- A. All exterior masonry on the Primary Digester No. 2 area of wall repair, shown on the Drawings, shall be repointed.
- B. Cut out mortar in joints so that the depth equals or exceeds two times the mortar joint thickness or until sound mortar is reached.
- C. Use power tools only after test cuts determine no damage to masonry units will result.
- D. Do not damage masonry units.
- E. When cutting is complete; remove dust and loose material by brushing/with water jet/air jet.
- F. Premoisten joint and apply mortar. Pack tightly. Form a smooth, compact concave joint to match existing.
- G. Mortar mix (exterior, nonloadbearing masonry): ASTM C 270, Type N, using the Proportion Specification. Colored to match existing work.
- H. Prehydrate mortar.
- I. Mixing: Use mechanical batch mixer and comply with referenced standards.
- J. Moist-cure for 72 hours.

3.05 CLEANING EXISTING MASONRY

- A. Medium- or Low-Pressure Steam Cleaning: Apply pressure to masonry surfaces, maintaining uniform depth and surface texture throughout.

- B. Use detergent, solvent, acid solution, or other means to clean areas where steam cleaning does not work.

3.06 PROGRESS AND FINAL CLEANING

- A. Immediately remove stains, efflorescence, or other excess resulting from the work of this section.
- B. Remove excess mortar, smears, and droppings as work proceeds and upon completion.
- C. Clean surrounding surfaces.

END OF SECTION

SECTION 04 05 13
MORTAR AND MASONRY GROUT

PART 1—GENERAL

1.01 SUMMARY

- A. The work includes mortar and grout for masonry.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. Kentucky Building Code.
- B. ASTM C91—Masonry Cement.
- C. ASTM C144—Aggregate for Masonry Mortar.
- D. ASTM C150—Portland Cement.
- E. ASTM C207—Hydrated Lime for Masonry Purposes.
- F. ASTM C404—Aggregates for Masonry Grout.
- G. ASTM C476—Grout for Masonry
- H. ASTM C979—Pigments for Integrally Colored Mortar/Concrete.

1.03 SUBMITTALS

- A. Submit under provisions of Section 01 33 00—Submittals.
- B. Submit information on Portland cement, integral waterproofing compound, and hydrated lime for mortar. Include design mix with proportions of materials being used. Submit gradation on aggregates.
- C. Submit design mix for grout including gradation of aggregates.
- D. Manufacturer's certificate: Certify that products meet or exceed specified requirements.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. All cement shall be stored in a dry, weatherproof, properly ventilated structure which will protect it from dampness and freezing.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. See Section 04 20 00—Unit Masonry System, for cold weather requirements.

PART 2-PRODUCTS

2.01 MORTAR

- A. Provide Portland cement-lime mortar or masonry cement mortar with proportion restrictions as stated in the Kentucky Building Code. Provide integral waterproofing compound in mortar for all exterior masonry. Provide Type N mortar for exterior non-load bearing brick and split face block veneer. Provide Type S mortar for all other masonry.
- B. Portland cement shall conform to ASTM C150, Type I or III.
- C. Hydrated lime shall conform to ASTM C207, Type S.
- D. Masonry cement shall conform to ASTM C91.
- E. Integral waterproofing compound shall be Dry-Block by W.R. Grace Company, or equal.
- F. Mortar aggregate for brick and block shall consist of clean, sharp sand, conforming to ASTM C144. The sand shall be graded within the following limits:

Sieve Number	Percent by Weight Passing
4	100
8	95 to 100
16	70 to 100
30	40 to 75
50	10 to 35
100	2 to 15
200	---

- G. Sand from any one source shall not vary over the extreme limits shown above. For unusually thin joints, such as occur with a unit having cut or ground edges, the aggregate used shall conform to these specifications except that 95% shall pass a No. 16 sieve.
- H. Water used in mixing water shall be clean and free of injurious materials.
- I. Mortar shall be thoroughly mixed until of uniform color and consistency. Only sufficient mortar to meet the immediate requirements of the work shall be mixed at one time. No mortar shall be retempered after it has begun to set, and no partially set mortar shall be used. No antifreeze material shall be used in the mortar to lower the freezing point.

2.02 GROUT

- A. Grout shall conform to ASTM C476—Mortar and Grout for Reinforced Masonry.
- B. Aggregates shall conform to ASTM C404—Aggregates for Masonry Grout.
- C. Grout shall have a minimum 28-day compressive strength of 2,500 psi with the following proportions:
 - 1. Fine Grout: 1 Portland Cement: 0 to 1/10 lime: 2 1/2 to 3 fine aggregate.

2. Coarse Grout: 1 Portland Cement: 0 to 1/10 lime: 2 1/2 to 3 fine aggregate: 1 to 2 coarse aggregate.
- D. Fine grout shall be used in spaces with least horizontal dimension greater than 3/4 inch and less than 2 1/2 inches. Coarse grout shall be used in all spaces with least dimensions 2 1/2 inches or greater.

PART 3-EXECUTION

3.01 INSTALLATION

- A. Brace masonry for wet grout pressure.
- B. Work grout into masonry cores and cavities.
- C. Where joints occur in grout, they shall be made 2 inches below the block joint so that a key is provided.

END OF SECTION

SECTION 04 20 00
UNIT MASONRY SYSTEM

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Concrete block.
 - 2. Brick.
 - 3. Anchorage and accessories.
 - 4. Cold weather requirements.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. Kentucky Building Code.
- B. ASTM C67—Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
- C. ASTM C90—Standard Specification for Loadbearing Concrete Masonry Units.
- D. ASTM C216—Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale).
- E. UL—Fire Resistance Directory.

1.03 QUALITY ASSURANCE

- A. Variation from the plumb in the lines and surfaces of columns and walls shall not exceed 1/4 inch in 10 feet, 3/8 inch in a story height or 20 feet maximum or 1/2 inch in 40 feet or more. Variation from plumb for external corners, expansion joints, and other conspicuous lines shall not exceed 1/4 inch in any story or 20 feet maximum or 1/2 inch in 40 feet or more.
- B. Variation from the level of the grades indicated on the drawing for exposed lintels, sills, parapets, horizontal grooves, and other conspicuous lines shall not exceed 1/4 inch in any bay or 20 feet or 1/2 inch in 40 feet or more.
- C. Variation of the linear building line from an established position in plan and related portion of columns, walls, and partitions shall not exceed 1/2 inch in any bay or 20 feet maximum or 3/4 inch in 40 feet or more.
- D. Variation in cross-sectional dimensions of columns and thickness of walls shall not exceed minus 1/4 inch or plus 1/2 inch from the dimensions indicated on the drawings.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Masonry units, when delivered to the site, shall be thoroughly cured and shall be dry. When stored on the site, they shall not be in contact with the ground, shall be kept clean and covered.

1.05 COLD WEATHER REQUIREMENTS

- A. All masonry units delivered to use in freezing weather shall be fully protected by a weathertight covering to prevent accumulation of ice on the units. Loose board covering will not be permitted.
- B. Cold Weather Protection:
 - 1. Remove any ice or snow formed on masonry bed by carefully applying heat until top surface is dry to the touch.
 - 2. Remove all masonry determined to be frozen or damaged by freezing conditions.
 - 3. Perform the following construction procedure while the work is progressing. When air temperature is from 40°F (4°C) to 32°F (0°C), heat sand or mixing water to produce mortar temperature between 40°F (4°C) and 120°F (49°C):
 - a. When air temperature is from 32°F (0°C) to 25°F (-4°C), heat sand or water to produce mortar temperature between 40°F (4°C) and 120°F (49°C); maintain temperature of mortar on boards above freezing.
 - b. When air temperature is from 25°F (-4°C) to 20°F (-7°C), heat sand and mixing water to produce mortar temperatures between 40°F (4°C) and 120°F (49°C); maintain temperature of mortar on boards above freezing; use salamanders or other heat sources on both sides of walls under construction; use wind breaks when wind is in excess of 15 mph.
 - c. When air temperature is from 20°F (-7°C) and below, heat sand and mixing water to produce mortar temperatures between 40°F (4°C) and 120°F (49°C); provide enclosures and auxiliary heat to maintain air temperature above 32°F (0°C); do not lay units which have a surface temperature of 20°F (-7°C).
 - 4. Perform the following protections for completed masonry and masonry not being worked on:
 - a. When the mean daily air temperature is from 40°F (4°C) to 32°F (0°C), protect masonry from rain or snow for at least 24 hours by covering with weather-restrictive membrane.
 - b. When the mean daily air temperature is from 32°F (0°C) to 25°F (-4°C), completely cover masonry with weather-restrictive membrane for at least 24 hours.
 - c. When the mean daily air temperature is from 25°F (-4°C) to 20°F (-7°C), completely cover masonry with insulating blankets or similar protection for at least 24 hours.
 - d. When mean daily temperature is 20°F (-7°C) and below, maintain masonry temperature above 32°F (0°C) for 24 hours using enclosures, blankets, and supplementary heat.

PART 2-PRODUCTS

2.01 CONCRETE BLOCK

- A. Concrete block shall be load bearing and shall conform to the requirements of ASTM C90 and the Kentucky Building Code. Bond shall be running bond. Concrete block shall be the two-cell type and shall be made with normal weight aggregate.

2.02 BRICK

- A. Face brick shall be ASTM C216, latest edition, Grade SW, Type FBS, made from clay, shale, fine clay, or mixture thereof. All brick shall be free from cracks, laminations, and other defects that may interfere with proper laying of brick or impair the strength or permanence of the structure.
- B. A certificate of conformance as to grade and type shall be supplied by the manufacturer.
- C. CONTRACTOR shall submit brick samples to ENGINEER for selection. The bricks to be used shall match the existing brick size and coursing.
- D. Provide all brick masonry to complete work.

2.03 REINFORCEMENT AND ANCHORAGE

- A. Ties shall be hot-dipped galvanized having a minimum 1.50 ounce/square foot zinc coating in accordance with ASTM A153 Class B2.
- B. Masonry Ties To Concrete Backing: For tying masonry to existing concrete, unless noted otherwise, use individual flat bar or wire anchors, the equivalent of not less than 3/16-inch-diameter steel rods, anchored into concrete with one tie for not more than 4 1/2 square feet of wall area. Ties in alternate courses shall be staggered. The maximum vertical distance shall not exceed 16 inches. The maximum horizontal distance shall not exceed 36 inches. Ties shall be galvanized.

2.04 ACCESSORIES

- A. Cellular or honeycomb cell vents, 2 1/2 inches high, shall be provided at weep holes. Cell vents shall be UV-resistant polypropylene, QV-Quadro-Vent, or equal.
- B. See Section 07 62 00-Flashing and Sheet Metal for masonry flashing specifications.

PART 3-EXECUTION

3.01 MASONRY WORKMANSHIP

- A. All masonry shall be laid plumb and true to lines. Brick shall be laid with complete full mortar joints. Mortar beds shall be spread smooth or only slightly furrowed. The ends of brick shall be buttered with sufficient mortar to fill the end joint.
- B. All masonry shall be laid in common bond to match the existing coursing.

- C. Avoid over-plumbing and pounding of the corners and jambs to fit stretcher units after being set in position. Where an adjustment must be made after the mortar has started to harden, the mortar shall be removed and replaced with fresh mortar.
- D. Where cutting of exposed masonry is necessary, the cuts shall be made with a motor-driven masonry saw or by other methods that provide cuts that are straight and true.
- E. Where flashing is to be laid on or against masonry, the surface of the masonry shall be smooth and free from projections that might puncture the flashing material. Through-wall flashing shall be placed on a bed of mortar, and mortar shall be placed above the flashing.
- F. Weep holes spaced 32 inches on center 2 1/2 inches high shall be provided in the first course immediately above all flashing and at the uppermost course immediately below soffits or coping. Weep holes shall be kept free of mortar droppings.
- G. All walls shall be adequately braced until they are completed and anchored to the roof construction.
- H. All brick having initial rates of absorption in excess of 0.25 ounce per square inch per minute shall be wetted sufficiently so that the rate of absorption when laid does not exceed this amount. Wetting of units shall be such so that each unit is nearly saturated, surface dry when laid. During freezing weather, units that require wetting shall be sprinkled with warm water just before laying.

3.02 MORTAR JOINTS

- A. All joints shall be laid plumb to lines. Unless specified otherwise, mortar beds shall be full 3/8-inch-thick and shall be spread smooth or only slightly furrowed. Vertical joints shall be shoved not over 3/8-inch-thick, unless otherwise shown. All joints shall be completely filled.
- B. Exterior joints shall be tooled concave. All joints shall be tooled to uniform depth and shall be straight and true.

3.03 JOINING OF WORK

- A. Where fresh masonry joins masonry that is partially set or totally set, the exposed surface of the set masonry shall be cleaned and lightly wetted so as to obtain the best possible bond with the new work. All loose brick and mortar shall be removed. If it becomes necessary to "stop-off" a horizontal run of masonry, this shall be done only by racking back brick in each course, and if grout is used, stopping grout 4 inches back of the rack. Toothing will not be permitted.

3.04 PROTECTION OF WORK

- A. During erection, all walls shall be kept dry by covering at the end of each day or shutdown period with a canvas or waterproof covering. Partially completed walls not being worked on shall be similarly protected at all times. All covering shall overhang at least 2 feet on each side of the wall and shall be securely anchored.

3.05 CLEANING NEW WORK

- A. Masonry faces to remain exposed shall be wiped with a damp cloth as the work progresses and thoroughly cleaned and pointed upon completion. If stiff brushes and water will not suffice, the surface shall be thoroughly wetted with plain water and then scrubbed with a 5% or 10% solution of hydrochloric acid. Alternatively, a commercial cleaner such as Sure Klean, or equal, may be used. Immediately after, the surface shall be washed to remove all traces of acid. All surfaces not being cleaned shall be protected from the acid. All mortar shall be removed from surfaces other than masonry.

3.06 EXISTING MASONRY

- A. Repair all masonry damaged during construction.
- B. All existing joints shall be pointed. Pointing mortar shall be prehydrated Type N. All adjacent surfaces shall be dampened. Joints shall be finished to match existing.
- C. All existing masonry which will remain exposed shall be cleaned as specified for new masonry.

END OF SECTION

SECTION 05 56 00
POST-INSTALLED ANCHORS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: Expansion bolts and adhesive anchors.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. ASTM A36/A36M—Standard Specification for Carbon Structural Steel.
- B. ICC-ES International Code Council—Evaluation Service.
- C. AC 193—Acceptance Criteria for Mechanical Anchors in Concrete Elements.
- D. AC 308—Acceptance Criteria for Post-Installed Adhesive Anchors in Concrete.
- E. ACI 355.2—Qualification of Post-Installed Mechanical Anchors in Concrete and Commentary.
- F. ACI 355.4—Qualification of Post-Installed Adhesive Anchors in Concrete and Commentary.

PART 2—PRODUCTS

2.01 GENERAL

- A. Unless indicated otherwise on the Drawings or specified, use the following bolt material for the various installation situations:
 - 1. Stainless Steel: For all submerged locations, below final grade, and in contact with aluminum appurtenances and other items not to be painted. Also for anchoring equipment, unless otherwise specified.
 - 2. Steel: In other locations in contact with items to be painted or encased in concrete.

2.02 EXPANSION BOLTS

- A. Expansion bolts shall be KWIK Bolt TZ by Hilti, Inc., Power-Stud+ SD2, SD4, or SD6 by DeWalt, Strong-Bolt or Strong-Bolt 2 by Simpson Strong-Tie Anchor Systems or approved equal.
- B. All expansion bolts shall comply with the Kentucky Building Code, AC 193, and ACI 355.2. They shall be ICC-ES approved for use in cracked and uncracked concrete.
- C. Expansion bolts will not be permitted as substitutes for embedded anchor bolts except with the prior written acceptance of ENGINEER or where otherwise specifically called for.

2.03 ADHESIVE ANCHORS

- A. Adhesive anchors shall be HIT HY 200 by Hilti, Inc., Red Head C6+ or Red Head A7+ by ITW, Pure 110+ or AC200+ by DeWalt, Set-XP by Simpson Strong-Tie Anchor Systems, or approved equal.
- B. All adhesive anchors shall comply with the Kentucky Building Code, AC 308, and ACI 355.4. They shall be ICC-ES approved for use in cracked and uncracked concrete.

PART 3-EXECUTION

3.01 EXPANSION BOLTS

- A. Unless otherwise noted on the Drawings, expansion bolt edge distance and spacing shall be in accordance with manufacturer's printed installation instructions.
- B. Bolt embedment shall at least equal 6-bolt diameters.
- C. Installation procedures shall be in accordance with the manufacturer's printed installation instructions.
- D. Where location of bolts is adjustable, reinforcing steel shall be located prior to drilling holes and bolts shall be located to clear reinforcing steel.

3.02 ADHESIVE ANCHORS

- A. At locations shown on the Drawings, reinforcing bars or threaded rod shall be provided in existing concrete by drilling holes, injecting epoxy adhesive, and inserting the reinforcing bar.
- B. All existing surfaces to receive adhesive anchors, including the entire area in contact with the new concrete, shall be cleaned and roughened to amplitude of 1/4 inch.
- C. Installation procedures shall be in accordance with the manufacturer's printed installation instructions.
- D. Adhesive anchors shall be installed in concrete having a minimum age of 21 days at the time of installation.
- E. Where location of anchors is adjustable, reinforcing steel shall be located prior to drilling holes and anchors shall be located to clear reinforcing steel.
- F. CONTRACTOR shall arrange an anchor manufacturer's representative to provide on-site installation training for installation of their adhesive anchor system products. Submit documentation that all CONTRACTOR's personnel or subcontractors who install adhesive anchors have been trained prior to the announcement of anchor installation.

END OF SECTION

SECTION 07 62 00
FLASHING AND SHEET METAL

PART 1—GENERAL

1.01 SUMMARY

- A. Work includes masonry wall flashing, custom-fabricated sheet metal flashing and counter flashing at parapet walls and other locations.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. ASTM A653—Steel Sheet, Zinc-Coated (Galvanized) or Zinc Iron Alloy-Coated (Galvanealed) by the Hot-Dip Process.
- B. ASTM A924—General Requirements for Steel Sheet, Metallic Coated by the Hot-Dip Process.
- C. ASTM B32—Solder Metal.
- D. ASTM B209—Aluminum and Alloy Sheet and Plate.
- E. ASTM D4586—Asphalt Roof Cement, Asbestos-Free.
- F. SMACNA—Architectural Sheet Metal Manual.

1.03 SUBMITTALS

- A. See Section 01 33 00—Submittals for general submittal requirements.
- B. Shop drawings: Submit fabrication details, jointing details, fastening methods, and termination details.

1.04 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA standard details and requirements.

1.05 QUALIFICATIONS

- A. Fabricator and installer shall be a company specializing in sheet metal fabrication work with a minimum of 5 years of verifiable experience in that field.

1.06 WARRANTY

- A. Kynar 500 coating shall be provided with a 20-year guarantee against cracking, chipping, peeling, and fading.

PART 2-PRODUCTS

2.01 MATERIALS

- A. Masonry wall flashing shall be 32 mil of self-adhesive rubberized asphalt integrally bonded to 8 mil of cross-laminated, high-density polyethylene film to provide a minimum 40 mil thick membrane. Flashing shall be PERM-A-BARRIER wall flashing as manufactured by Grace Construction Products, or equal. Provide primer or surface conditioner as recommended by manufacturer.
- B. Galvanized Steel Sheet: 26 gauge meeting ASTM A525, Grade A, with G90 zinc coating.
- C. Aluminum Sheet: 0.032-inch-thick meeting ASTM B209.
- D. Fasteners: Same material and finish as flashing sheet. Stainless steel fasteners may be used with any flashing material. Provide soft neoprene washers with fasteners.
- E. Primer: Zinc chromate type.
- F. Protective Backing Paint: Bituminous type.
- G. Sealant: See Section 07 90 00—Caulking and Sealants.
- H. Bedding Compound: Rubber asphalt or butyl type.
- I. Plastic Cement: ASTM D4586, Type I or II.
- J. Reglets: Galvanized steel or PVC, surface-mounted or recessed, or as shown on the Drawings.
- K. Solder: ASTM B32. Soldering is not permitted on aluminum or stainless steel sheet.

2.02 FABRICATION

- A. All flashing and fascia shall be formed to the configurations shown on the Drawings and/or the applicable manufacturer's details, or in accordance with SMACNA standard details where not shown on the Drawings, or in manufacturers details. Form sections true to shape, accurate in size, square, and free from buckles, kinks, or other defects.
- B. All exposed edges shall be folded or returned on themselves at least 1/2 inch. Corners shall be mitered and seamed.
- C. Form pieces in the longest possible lengths. Form material with flat lock seams.
- D. All sections shall be provided with slip joints at 8 feet on center.
- E. Cleats shall be fabricated of the same materials as the flashing sheets and shall be interlockable with the sheets.
- F. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form a drip.

- G. Fabricate corners from one piece with minimum 18-inch-long legs. Seam or solder for rigidity and seal with sealant.

2.03 FINISH

- A. Back paint all sheet metal with asphaltum paint where sheet metal surfaces come in contact with masonry or steel.
- B. Flashing and fascia shall be painted where exposed to view from the ground. Galvanized steel and aluminum shall be coated with a Kynar 500 coating system. Color shall match existing flashing.

PART 3—EXECUTION

3.01 INSTALLATION

- A. Through-wall flashing shall be installed 1/2 inch back of the outside face of the wall, carried through the outside wythe, turned up in the collar, and adhered to back-up wall as shown on the Drawings. At no time should any portion of the flashing be allowed to hang or drape beyond the width of the wall. All laps shall be sealed and shall not be less than 3 inches in width.
- B. Fit flashing tight in place. Make corners square, surfaces true and straight in planes, and line accurate to profiles. Seal metal joints watertight.
- C. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted by ENGINEER.
- D. Insert flashings into reglets, where shown on the Drawings. Seal flashings into reglets with sealant.
- E. Counter flashing shall be provided at all vertical masonry and/or concrete walls which extend above the roof line. The counter flashing shall be installed in a reglet unless otherwise shown. Surface-mounted reglets shall be used where noted.

END OF SECTION

SECTION 07 90 00
CAULKING AND SEALANTS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: Caulking and sealants on the project, including primers and backer rod material.
- B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

- A. ASTM C920—Elastomeric Joint Sealants.

1.03 SUBMITTALS

- A. Submittals shall comply with provisions of Section 01 33 00—Submittals.
- B. Submit color chart for each sealant used on project. Colors will be selected by OWNER.
- C. Submit copies of warranty.

1.04 WARRANTY

- A. Caulked joints shall be weathertight and guaranteed watertight by installer for two years from the date of contract completion as established in the Notice to Proceed in the Contract Agreement. Deliver original guarantee to OWNER with copies to ENGINEER.

PART 2—PRODUCTS

2.01 CAULK—NONSUBMERGED AND SUBMERGED NON-POTABLE APPLICATIONS—GENERAL

- A. Caulk for nonsubmerged and submerged non-potable water contact applications in all locations except floor joints shall be a one-part or two-part polyurethane sealant.
- B. Acceptable products include the following, or equal:
 - 1. Masterseal NP1 by Master Builders Solutions.
 - 2. Vulkem 116 by Tremco, Inc. (exterior applications only).
 - 3. Dymonic 100 by Tremco, Inc.
 - 4. Sikaflex-2c NS EZ Mix by Sika Products.

2.02 ACCESSORIES

- A. Backer rod shall be flexible, closed-cell polyethylene rod stock sized to be under at least 25% compression when positioned in the joint. In shallow joints and where backer rod is not

used, polyethylene bond breaker tape shall be used. It is essential that the caulk bond to the side of the joint but not to the base of the joint.

- B. Primer(s) shall be used where required by the manufacturer for the specific product(s) used and the specific application(s) intended. Specific product(s) shall be as recommended by the manufacturer.
- C. Cleaning fluid shall be methyl ethyl ketone (MEK), methyl isopropyl ketone (MIK), or similar solvent material which will not etch or mar metal finishes and shall be the product of a nationally recognized manufacturer, of type expressly recommended for use with the caulking or sealant compound used.

PART 3-EXECUTION

3.01 INSTALLATION

- A. Joints in exterior walls shall be caulked in a completely weathertight manner. Caulking not specified in other sections shall be performed under this heading.
- B. All caulking shall be done in accordance with manufacturer's specifications. Allow minimum 28-day curing period for concrete, grout, or mortar prior to caulking unless requested otherwise. All caulking shall occur only when the temperature is above 40°F.
- C. Joints shall be thoroughly cleaned and primed before caulking in accordance with manufacturer's instructions. Unless otherwise shown, joints shall be square in cross section 1/2-inch by 1/2-inch and shall comply with manufacturer's joint width/depth ratio limitations.
- D. Backer rod shall be used in all openings 3/4 inch or more in depth and shall be tightly packed to completely fill the space to 1/2 inch back of face. The 1/2 inch shall then be filled with caulking compound.
- E. Caulking shall be done by hand gun. Compound shall be driven into joint grooves with sufficient pressure to force out all air and fill joint grooves solidly. Caulking where exposed shall be free of wrinkles and shall be uniformly smooth.
- F. At completion of caulking, clean off all excess material from adjoining surfaces and material. Entire installation shall be left in a clean, weathertight condition.

3.02 CAULKING EXISTING JOINTS

- A. Existing caulk and backer shall be completely removed. Caulk joints as specified for new construction.

END OF SECTION

PART XI

APPENDIX A



Strand Associates, Inc.®
1525 Bull Lea Road, Suite 100
Lexington, KY 40511
(P) 859-225-8500
(F) 859-225-8501

Transmittal Letter

DATE: 05/13/2019

PROJECT NO. 2815.257

COMPANY NAME: Judy Construction Company

ATTENTION: Paul Lawrence

ADDRESS: P.O. Box 457

CITY/STATE/ZIP: Cynthiana, KY 41031

RE: Town Branch WWTP Primary Digester Complex Improvements - Bid No. 181-2017

WE ARE SENDING YOU:

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> Change Order | <input type="checkbox"/> Drawings | <input type="checkbox"/> Samples | <input type="checkbox"/> Specifications |
| <input type="checkbox"/> Copy of Letter | <input checked="" type="checkbox"/> Enclosed | <input checked="" type="checkbox"/> Shop Drawings | <input type="checkbox"/> Under Separate Cover |
| <input type="checkbox"/> Other _____ | | | |

Copies	Submittal No.	Specification Section	Date Received	Description
1	SD73/07552	07552	04/29/2019	Roofing

ITEMS TRANSMITTED AS SHOWN:

- | | | |
|---|---|---|
| <input type="checkbox"/> For approval | <input type="checkbox"/> Approved as submitted | <input type="checkbox"/> Resubmit _____ copies for approval |
| <input type="checkbox"/> For your use | <input checked="" type="checkbox"/> Approved as noted | <input type="checkbox"/> Submit _____ copies for distribution |
| <input type="checkbox"/> As requested | <input type="checkbox"/> Approved as noted-Resubmit | <input type="checkbox"/> Additional Information Required |
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> Not Approved | <input type="checkbox"/> For signature |
| <input type="checkbox"/> Other _____ | | |

REMARKS:

Please address comments before proceeding with roofing work.

Signed Emily Epperson, P.E.

Copy to: File

S:\LEX\2800-2899\2815\257\PDF\Shop Drawings\From Judy\Strand Comments\SD73 Transmittal.docx

<u>Submittal Stamp Page</u>		
<u>Project:</u> Town Branch Digester Improvements Lexington-Fayette Urban County Government		<u>Contractor:</u> Judy Construction Co., 103 S. Church St. Cynthiana, KY 41031
Copies	Submittal Number	Submittal Description
1	SD73	Roofing
<p style="text-align: center;">Contractor Certification Statement</p> <p>By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with the contract drawings, specifications, other applicable approved shop drawings and all contract requirements.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> <p><u>Paul Lawrence</u></p> <p>Signature</p> </div> <div style="width: 45%; text-align: right;"> <p><u>4/29/19</u></p> <p>Date</p> </div> </div>		
Contractor Stamp		Engineering Stamp
<p>Specification Section _____</p> <p>Shop Drawing # <u>SD73</u></p> <p style="text-align: center;">JUDY CONSTRUCTION COMPANY</p> <p>By: <u>PL</u> Date: <u>4/29/19</u></p> <div style="margin-top: 10px;"> <div style="border: 1px solid black; width: 80px; height: 20px; display: flex; align-items: center;"> <div style="width: 30px; height: 10px; background: linear-gradient(to top right, transparent 48%, black 48% 52%, black 52%);"></div> <div style="margin-left: 5px;">Reviewed</div> </div> <div style="border: 1px solid black; width: 80px; height: 20px; display: flex; align-items: center; margin-top: 5px;"> <div style="width: 30px; height: 10px; background-color: white;"></div> <div style="margin-left: 5px;">Reviewed As Noted</div> </div> </div>		<div style="border: 1px solid black; padding: 10px;"> <div style="text-align: center;"> <p>CORNERSTONE ENGINEERING INC</p> <p style="font-size: small;">Strong team. Smart solutions.</p> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED </div> <div> <input checked="" type="checkbox"/> APPROVED AS NOTED <input type="checkbox"/> REVISE AND RESUBMIT </div> </div> <p style="font-size: x-small; margin-top: 10px;"> Engineer review is only for checking conformance with the information given and with the design concept expressed in the Contract Documents. Any and all markings and/or comments applied by the Engineer shall not relieve the Contractor from compliance with the Contract Documents, nor allow departures there from. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes or techniques of assembly, for performing his work in a safe manner, and for coordinating his work with all other trades. </p> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 10px;"> BY John Temple 05/11/2019 </div> </div> </div>
<p>Comments:</p> <p style="color: red; margin-top: 20px;"> CORNERSTONE ENGINEERING comments (May 11-2019): 1. Existing drawings to not indicate structural roof slabs to be sloped. Contractor shall provide written confirmation of whether flat roof structure affects 20 year warranty period for materials and roof membrane composition as contained in this submittal. 2. General Contractor shall not proceed with roofing work until comment #1 is addressed. </p>		

MATCH LINES

100

1003

CS-COVER SHEET



KRSM JOB #: 77-7513

LEXINGTON, KY 40511

TOWN BRANCH WWTP
301 LISLE INDUSTRIAL RD

DRAWING REVISIONS	
NO.	DESCRIPTION
1	FOR PERMIT

DRAWING SHEET LIST	
SHEET #	DESCRIPTION
01	GENERAL NOTES
02	ROOF PLAN
03	DETAILS
04	DETAILS
05	DETAILS
06	DETAILS
07	DETAILS
08	DETAILS
09	DETAILS
10	DETAILS
11	DETAILS

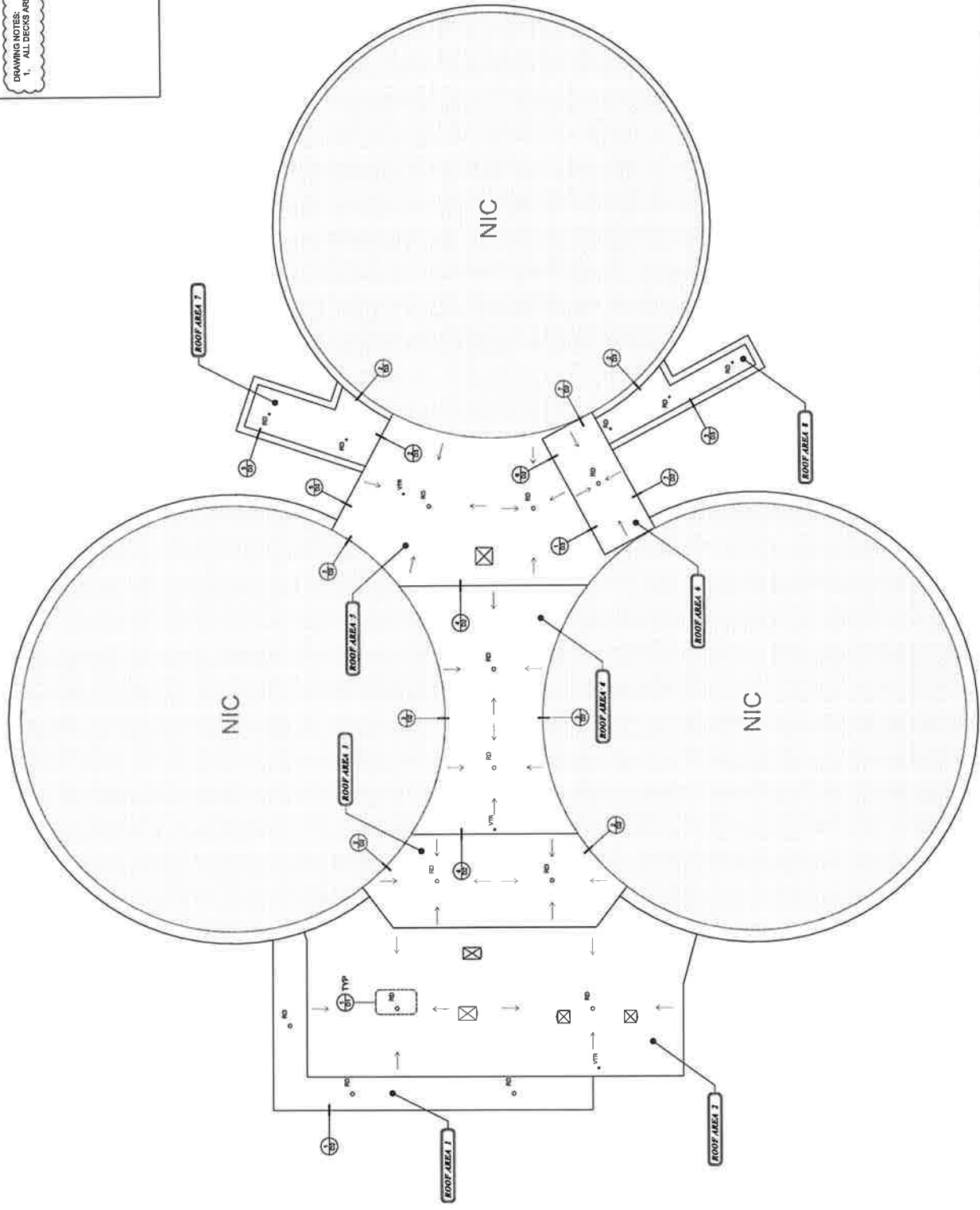
PROJECT TEAM	
OWNER	LEXINGTON, KY 40511
DESIGNER	ARCHITECT
ENGINEER	ARCHITECT
CONTRACTOR	ARCHITECT
DATE	ARCHITECT

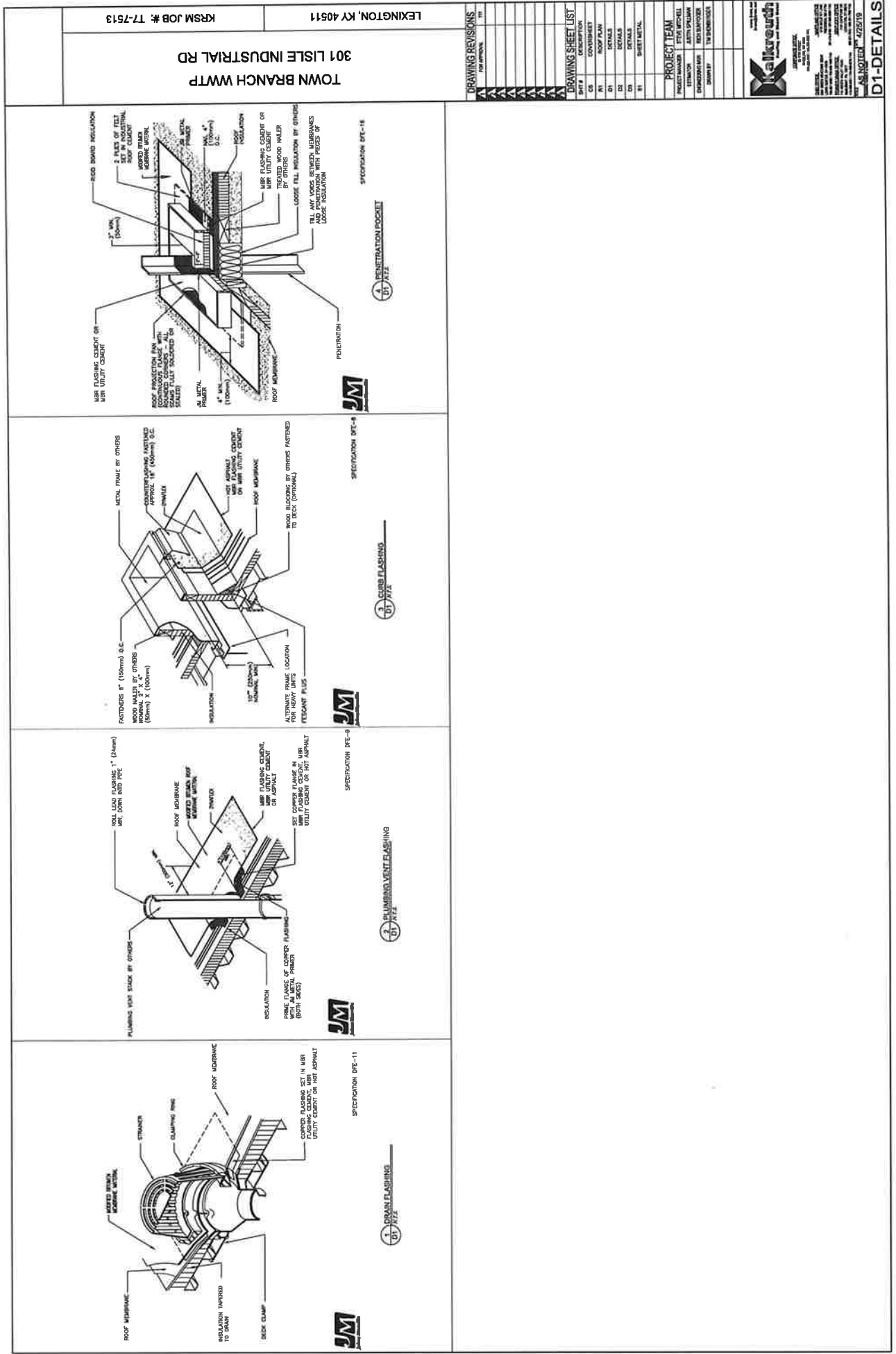


4725119

R1-ROOF PLAN

DRAWING NOTES:
1. ALL DECKS ARE STRUCTURALLY SLOPED FOR WATER DRAINAGE





LEXINGTON, KY 40511

TOWN BRANCH WWTP
301 LISLE INDUSTRIAL RD

KRSM JOB #: 77-7513

A	FOR APPROVAL	BY

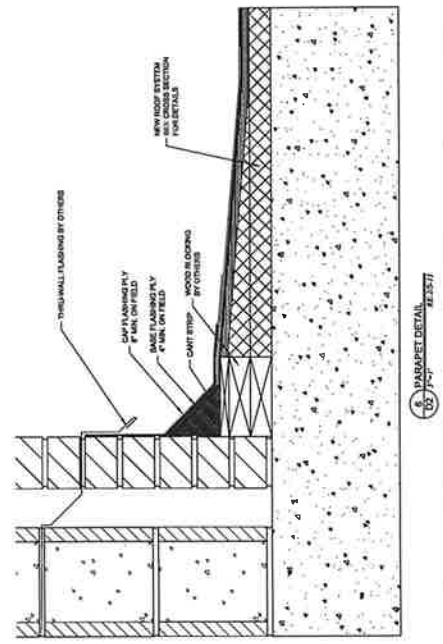
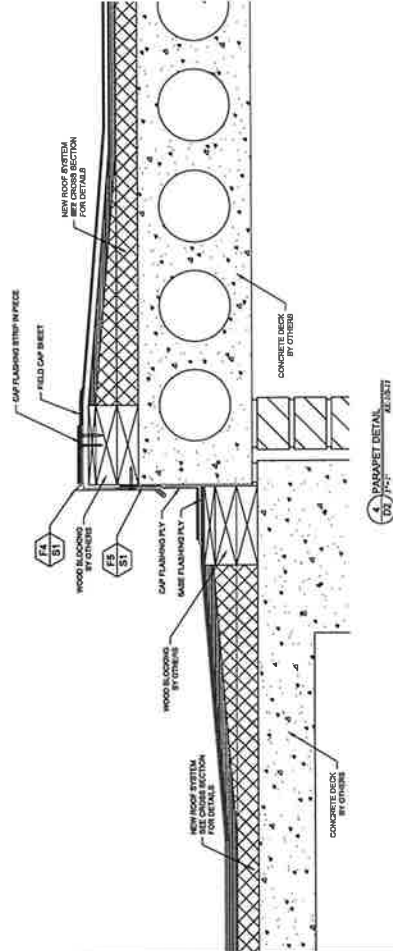
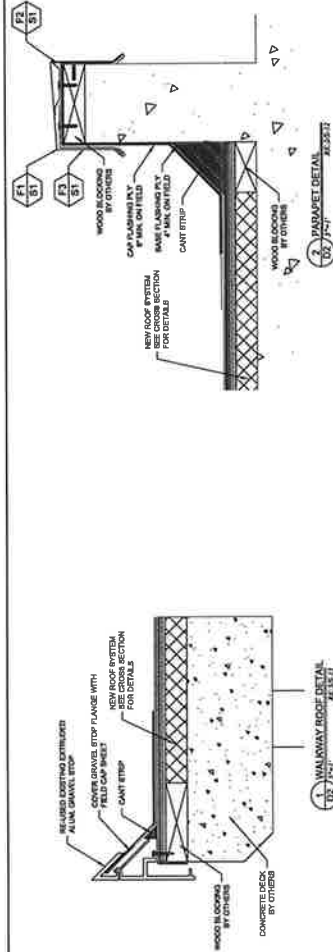
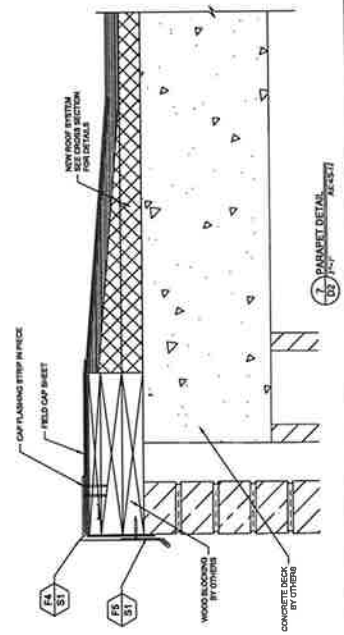
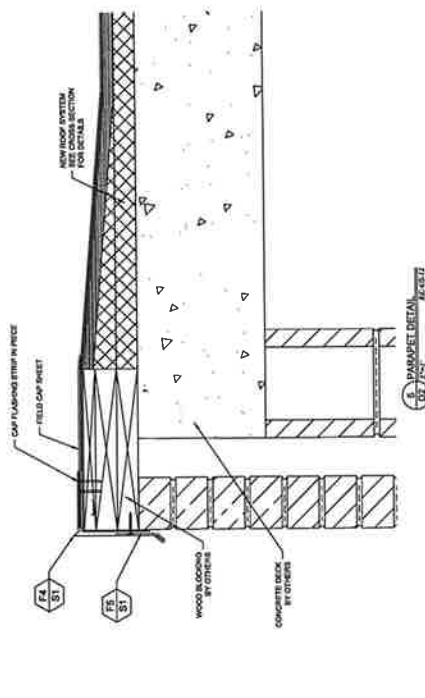
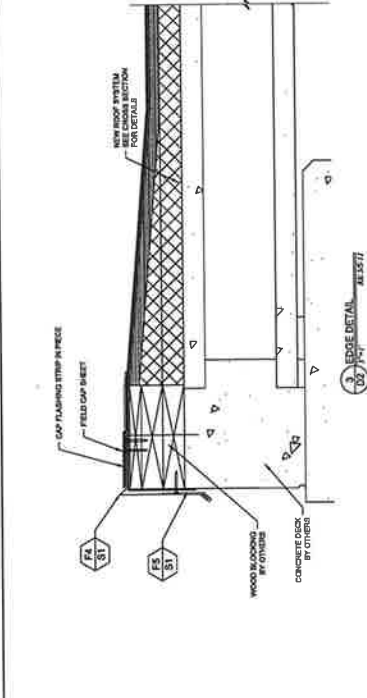
DRAWING REVISIONS

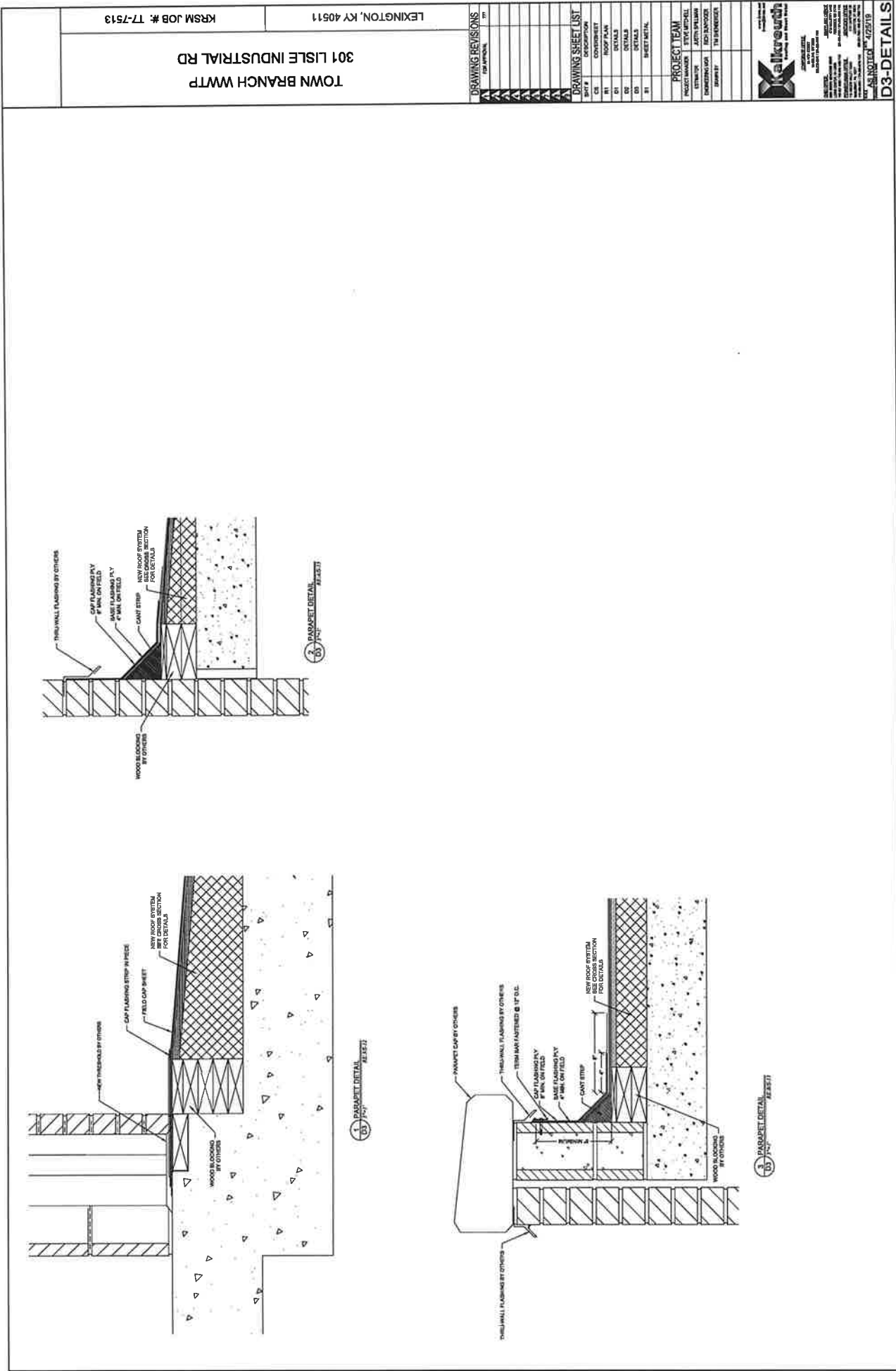
DRAWING SHEET LIST	
SHEET #	DESCRIPTION
C8	COVERS-CEET
M1	ROOF PLAN
D1	DETAILS
D2	DETAILS
D3	DETAILS
S1	SHEET METAL

PROJECT TEAM	
PROJECT MANAGER	STEVE MITCHELL
ESTIMATOR	AUSTIN SPILLMAN
ENGINEERING MAN	RICH SAMPSON
CHAIRMAN	THE SHERIFFS

[illegible]

AS NOTED 4/25/19
D2-DETAIL S





**KENTUCKY DIVISION**

PO Box 11246
2131 Capstone Drive
Lexington, KY 40511
(859) 231-7663
(859) 231-7669 Fax

Required Submittals For:	Town Branch WWTP
KRSM Job #:	T7-7513
Location:	301 Lisle Industrial Rd Lexington, KY 40511
Specification Section:	07511 Built Up Asphalt Roofing

Date Submitted:	April 25, 2019
To GC:	Judy Construction
Attn:	Paul Lawrence
KRSM Project Manager:	Steve Mitchell
Submittal Prepared by:	Tim Shenberger

Number:	Paragraph:	Description:
07511-02	1.3A	BUR Product Data

Submittal Comments:

These items must be approved together to receive warranty? (Yes/No)

General Contractor's Stamps:	Architect/Engineer's Stamps:

Meets or exceeds the criteria for ASTM D 6221, Type I

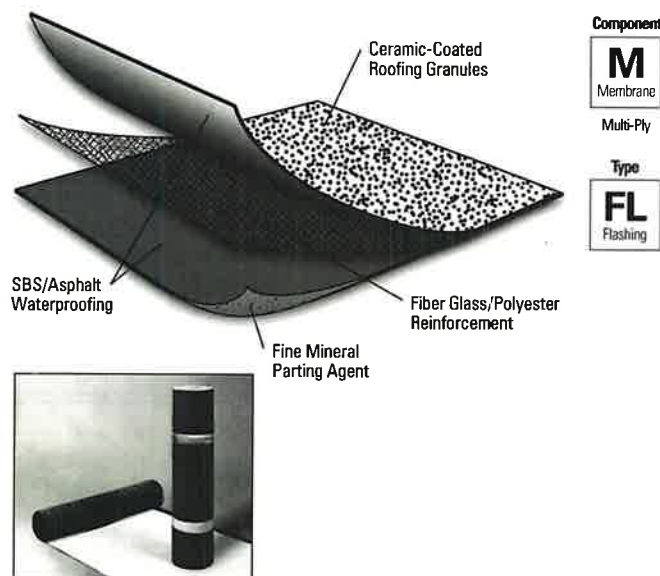
Features and Components

DynaFlex is used as a fiber glass/polyester reinforced cap flashing membrane in a variety of multi-ply roofing systems.

Ceramic-Coated Roofing Granules: Specifically engineered for optimal embedment in the SBS-blend sheet. The ceramic coating promotes excellent long-term adhesion.

High-Quality SBS Rubber and Asphalt Blend: Lends elasticity and flexibility to the sheet. The elongation and recovery properties allow the product to easily accommodate the continual expansion and contraction experienced on all roofs.

Fiber Glass/Polyester Reinforcement Mat: Combines the excellent tensile strength, toughness and puncture resistance of a polyester mat with the dimensional stability and lay-flat characteristics of fiber glass.



System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
Compatible with the selected Multi-Ply systems above								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
Do not use with Single Ply systems							

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

Energy and the Environment

Test	Initial	3-Year Aged
Reflectivity* (ASTM C 1549)	0.26	0.27
Emissivity* (ASTM C 1371)	0.87	0.84
Solar Reflectance Index* (SRI) - E 1980	25	25
Pre-Consumer Recycled Content	0%	
Post-Consumer Recycled Content	0%	

*Standard White Granule only

Peak Advantage® Guarantee Information

Systems	Guarantee Term
When used in most 2-5 ply JM SBS systems.*	Up to 30 years

*Contact JM Technical Services for specific system requirements or guarantee terms.

Codes and Approvals



Product Application



- May be installed in Type IV asphalt or in an approved JM adhesive
- Laps may be installed using heat-welding techniques
- Refer to JM SBS modified bitumen specifications and detail drawings for application and slope information

Packaging and Dimensions

Roll Coverage*	75 ft² (6.97 m²)
Roll Length	25' (7.62 m)
Roll Width	36" (0.91 m)
Roll Weight	81 lb (36.7 kg)
Rolls per Pallet	20
Pallet Weight	1,750 lb (794 kg)
Pallets per Truck**	22

*Assumes a 4" side lap **Assumes 48' flatbed truck.



DYNAFLEX®

Fiber Glass/Polyester-Reinforced,
SBS Mineral-Surfaced Flashing Sheet

Meets or exceeds the criteria for ASTM D 6221, Type I

Tested Physical Properties

Physical Properties		ASTM Test Method	Standard for ASTM D 6221, Type I (Min.)	DynaFlex	
				MD*	XMD**
Strength	Peak Tear Resistance	D 5601	1.8 lbf (8 N)	30 lbf (133 N)	46 lbf (205 N)
	Peak Load at 73.4°F (23°C)	D 2523	55 lbf (24.9 kgf)	127 lbf (58 kgf)	132 lbf (60 kgf)
Longevity	Low Temp. Flexibility	D 5683	No Cracks @ 40°F (4.4°C)	No Cracks	
	Thickness	D 751	130 mil. (3.3 mm)	152 mil (3.9 mm)	
Installation	Dimensional Stability	D 5147	N/A	0.2%	0.2%
	Net Mass per Unit Area	D 228	70 lb/100 ft² (32 kg/9.29 m²)	104 lb/100 ft² (47.2 kg/9.29 m²)	
	Roll Weight	D 146	N/A	81 lb (36.7 kg)	

*MD = Machine Direction

**XMD = Cross-Machine Direction

Note: Material tested in accordance with ASTM D 5147 Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials.

Features and Components

The PermaFlash System consists of PermaFlash Primer, MBR Flashing Cement, and PermaFlash Scrim. It is an integrated flashing system specifically formulated for use in bituminous systems.

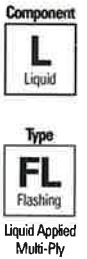
PermaFlash Primer (Low VOC): One-Part Solvent-Based Primer that improves adhesion of MBR® Flashing Cement to nonporous substrates.

MBR Flashing Cement: Two-part, liquid-applied flashing material that cures to a durable, elastomeric film.

PermaFlash Scrim: Flexible stitchbonded polyester scrim.

Colors: Primer - Clear; Liquid Base - Black; Activator - Brown; Scrim - White

1. Please see the MBR Flashing Cement data sheet for more information.



Features: Can be used to flash most penetrations, drains, and vertical surfaces.

Resists virtually all factors affecting flashing performance while providing superior flexibility and durability.

High solids, low odor, VOC compliant, and UV stable.

System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
Compatible with all Multi-Ply systems*								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
Do not use in Single Ply systems							

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

*As part of the PermaFlash integrated flashing system

Energy and the Environment

Maximum VOC	0 g/L (primer - low VOC) <121 g/L (base) 0 g/L (activator) <98 g/L (activated base)
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Physical Properties

Property	ASTM Test Method	MBR Flashing Cement
Strength	Tensile Strength	D 412 600 psi (4.1 MPa)
	Elongation	D 412 > 300%
Installation	Working Time ² @ 77°F (25°C)	— 30 min
	Rainproof After ² @ 77°F (25°C)	— 4 hrs
Longevity	Hardness @ 77°F (25°C)	D 2240 65 Shore A
	Crack Bridging (after heat aging)	— 1/8" (3 mm)
	Softening Point, Ring and Ball	D 36 275°F (135°C)
	Elastomeric Waterproofing	C 836 / C 957 Exceeds All Criteria
	Abrasion Resistance	D 4060 ³ 1.2 mg loss
	Permeability to Water Vapor	E 96 ¹ 0.03 perms
Service Temperature		NA -60° to 220°F (-51° to 104°C)

1. Method E, 100°F (38°C), 100 mil (3 mm) sheet 2. Working and cure times will vary depending on ambient, surface and material temperatures. 3. 1,000 gr./1,000 rev., CS-17 wheel

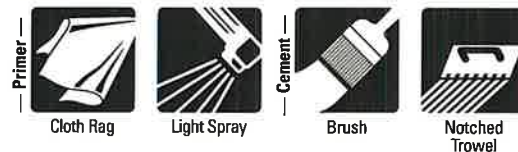
Peak Advantage® Guarantee Information

Systems	Guarantee Term
Any bituminous roofing system.	Up to 20 years*

*Can be included in Peak Advantage Guarantee for new systems.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Installation/Application



Packaging and Coverage

Primer Container Size	Box of six 32 oz (946 ml) bottles
Primer Coverage Rate ¹	150 ft ² (13.94 m ²)
Cement Container Sizes	Base: 3.9 gal (16.5 l) pail
	Activator: 44.1 oz (1.3 l) jug
	Base & Activator: 28.7 oz (848.8 ml) cartridges
Cement Coverage Rate ²	20-25 ft ² /gal (0.49 - 0.61 m ² /l)
Scrim Roll Size	12' (305 mm) w x 300' (91.4 m)
Scrim Coverage	300 ft ² (27.87 m ²) or 20 ft ² (1.86 m ²) - within kit
PermaFlash Kit	4 - 28.7 oz (848.8 ml) cartridges
	1 roll - 12' (305 mm) w x 20' (91.4 m) scrim
	1 - 32 oz (946 ml) bottle of primer

1. Do not apply material at higher coverages per square foot. Applying too much PermaFlash Primer will result in less adhesion than if the primer had not been used. When applied at the proper coverage, evaporation should occur within a few seconds.
2. Nominal 1/16" (2 mm) thick layer of adhesive. Coverage, open and dry time rates can vary dramatically depending on the particular substrate and environmental conditions. Coverage rates stated herein are approximate only. If FM Global® or UL® approval is required, consult specific RoofNavSM or the UL Certifications Directory for specific application rates.

Storage

Shelf Life	Primer & Scrim: 24 months from manufacture date Base: Indefinite in sealed container; Activator: 24 months; Cartridges: 12 months
Storage Conditions	Clean, dry, indoor environment, unopened container
Temperature Range (Protect from freezing)	Primer: 20°F - 90°F (-7°C - 32°C) Cement & Scrim: 60°F - 90°F (16°C - 32°C)



PERMAFLASH® SYSTEM

Elastomeric Liquid Applied Flashing Membrane

Application Instructions

See PermaFlash Bituminous Flashing System Detail Instructions, PermaFlash Bituminous Flashing System Penetration Flashing, and PermaFlash Flashing Details for installation instructions.

Clean-Up and Disposal

Clean-Up Information

Use mineral spirits to clean tools immediately after completion of work. Periodically place tools in a pail of mineral spirits to prevent buildup of cement. Wear rubber gloves during all applications and clean up procedures. Follow manufacturer's warnings and cautions about using solvents.

Disposal Information

For disposal instructions, please refer to the safety data sheet.

Precautions

Handling Refer to product Safety Data Sheet (SDS) for additional information pertaining to this product and prior to use or handling. Roofing contractors must advise their crews to precisely follow all safety, storage, handling, preparation and application instructions. JM will not accept responsibility for any use of this product that does not comply with the instructions printed on the containers.

Material meets the requirements of ASTM D 4601, Type II

Features and Components

PermaPly 28 is designed for use as the first or base sheet in built up roofing or modified bitumen roof assemblies.

Lightweight: Exceptionally pliable, easy to handle and lays flat.

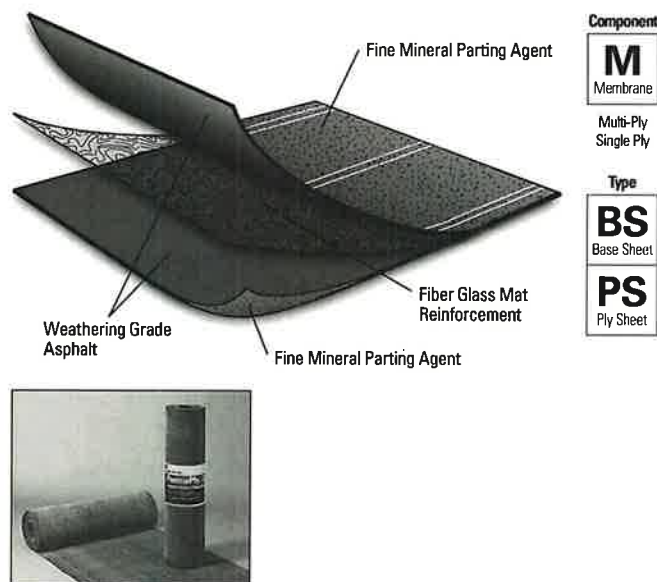
Asphalt Coating: Makes it suitable as an intermediate or ply felt in cold-applied built-up and modified bitumen roof assemblies.

Ideal for Mechanical Attachment: Use where mechanical attachment of the membrane to the roof substrate or deck is desired.

Fiber Glass Reinforcement Mat: Low moisture, excellent dimensional stability and resistance to rot make it an ideal replacement for organic base or ply sheets. Provides a solid dimensionally stable substrate for other roofing membrane components.

Laying Lines: Laying lines are imprinted on the top surface so the roofing mechanic can install the felt with the proper exposure and provide the correct number of plies.

Surfacing: Fine mineral parting agent.



System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
Compatible with the selected Multi-Ply systems above								

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

Single Ply	TPD		PVC*		EPDM		
	MF	FA	MF	FA	MF	FA	BA
Compatible with the selected Single Ply systems above							

*Suitable as an intermediate ply in hot asphalt applied hybrid PVC fleece back membrane systems.

Energy and the Environment

Pre-Consumer Recycled Content	0%
Post-Consumer Recycled Content	0%

Peak Advantage® Guarantee Information

Systems	Guarantee Term
Dependent on system	Up to 30 years

*Contact JM Technical Services for specific system requirements or guarantee terms.

Codes and Approvals



Installation/Application



Hot Asphalt



Cold Applied



Mechanically Fastened

Refer to JM BUR application guides and detail drawings for instructions.

Roll Size	36" x 106' (914 mm x 32.31 m)
Roll Coverage (net)	300 ft² (27.87 m²)
Roll Coverage (gross)	316.5 ft² (29.5 m²)
Roll Weight	67 lb (30.4 kg)

Material meets the requirements of ASTM D 4601, Type II

Tested Physical Properties

Physical Properties		ASTM Test Method	Standard Type II	PermaPly 28
Strength	Breaking Strength @ 73.4° F, (<i>min</i>) (lbf/in)			
	Longitudinal (with fiber grain)	D 146	≥ 44	76
	Transverse (across fiber grain)	D 146	≥ 44	45
	Pliability at 77° F (pass/fail) 90° around 1" mandrel @ 77° F, (pass/fail)	D4601	No Failures	Pass
Performance	Net Dry Mass - Coated Sheet, (<i>min</i>) (lb/100ft ²) Individual Roll	D 228	≥ 14.5	22.4
	Mass per Area of Desaturated Glass Felt (lb/100ft ²)	D 228	≥ 1.7	2.0
	Moisture at Point of Manufacture, (<i>max</i>) (%) ¹	D 146	≤ 1.0	0.6
	Surfacing and Stabilizer, (<i>max</i>) (%)	D 228	≤ 65	65
	Asphalt, (<i>min</i>) (lb/100ft ²)	D 228	≥ 7.0	7.1
	Ash - glass mat only, (%)	D 228	70 – 88	77
Installation	Unrolling @ 40° F and 140° F, (pass/fail)	D 4601	No Damage	Pass

Note: 1. Moisture (As Received) was utilized in lieu of Moisture at Point of Manufacture

Meets the requirements of ASTM C 1289, Type II, Class 1, Grade 2 (20 psi)

• ENRGY 3 / Tapered ENRGY 3

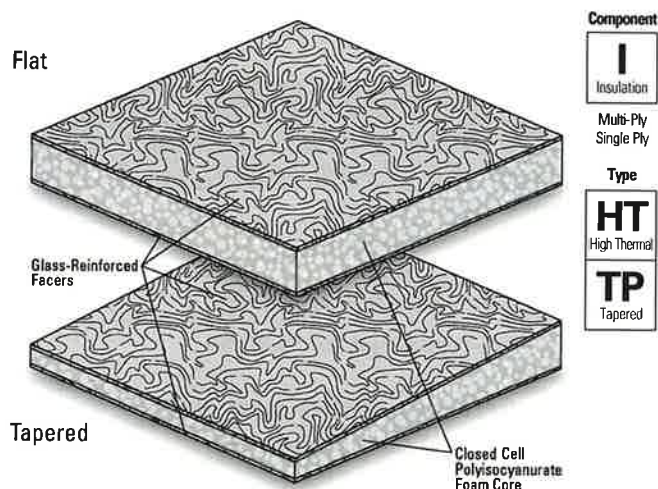
Grade 3 (25 psi)

• ENRGY 3 25 PSI / Tapered ENRGY 3 25 PSI

Features and Components

Glass-Reinforced Facers: Provides rigidity and resistance to indentation and crushing, and are compatible with BUR, modified bitumen and single ply membrane systems.

Closed Cell Polyisocyanurate Foam Core: Provides high R-value per inch in built-up, modified bitumen, metal roof and single ply roof systems, and approved for direct application to steel decks.



System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	HW	HA	CA	HW	SA	MF
Compatible with the selected Multi-Ply systems above								

Single Ply	TPO			PVC			EPDM		
	MF	AD	IW	MF	AD	IW	MF	AD	BA
Compatible with all Single Ply systems									

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened IW = Induction Weld BA = Ballasted AD = Adhered

Energy and the Environment

LEED®	Recycled Content	Varies with thickness, see <i>Product Data and Packaging</i> table on next page.
Produced with a pentane blowing agent with zero ozone depletion and virtually no global warming potential.		

Peak Advantage® Guarantee Information

Systems
For use in approved JM Peak Advantage Roofing Guarantees

Codes and Approvals



- FM® Standards 4450/4470 Approvals (refer to FM RoofNav™)
- UL® Standard 790, 263 and 1256 (refer to UL Roofing Materials system directory)
- Meets the requirements of CAN/ULC S704, Type 2 & 3, Class 3
- California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1341
- Third-party certification with the PIMA Quality Mark™ for Long-Term Thermal Resistance (LTTR) values

Refer to the Safe for Use instructions and product label prior to using this product. The Safe for Use instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Note: Technical information on this data sheet is intended to be used as a general guideline only and is subject to change without notice. Contact your JM Sales Representative for further details.

Installation/Application



Refer to the application instructions guidelines for proper utilization of this product.

Flute Span:

Width of Rib Opening: Up to 2⁵/₈" (6.67 cm) Up to 3³/₈" (8.57 cm) Up to 4³/₈" (11.11 cm)

Insulation Thickness (min): 1.0" (2.54 cm) 1.2" (3.05 cm) 1.3" (3.30 cm)

Packaging and Dimensions

Flat Sizes ¹	4' x 4' (1.22 m x 1.22 m)	4' x 8' (1.22 m x 2.44 m)
Tapered Size ²	4' x 4' (1.22 m x 1.22 m)	
Producing Locations	Bremen, IN Hazleton, PA	Cornwall, ONT Jacksonville, FL Fernley, NV
Stocking Locations ³	Grand Prairie, TX	Southgate, CA Tracy, CA

1. For available thicknesses, see *Product Data and Packaging* table on page 2 of this data sheet. Other sizes available by special request, some sizes are not stocked but can be special ordered with minimum order quantities. Contact your JM Sales Representative for details.

2. Tapered ENRGY 3 and Tapered ENRGY 3 25 PSI are available in thicknesses of 1/2" to 4". Available profiles are shown on page 3 of this data sheet. In some regions extended panels are also available.

3. Not all sizes, thicknesses, and products are stocked at all locations, please call Customer Service at 1-877-766-3295.

Typical Physical Properties

Test	ASTM	Values
Strength	Tensile Strength	C 209 500 psf (24 kPa) (min), 730 psf (35 kPa) (nom)
	Compressive Resistance 10% Consolidation	D 1621 Grade 2: 20 psi (138 kPa), Grade 3: 25 psi (172 kPa) (min)
	Dimensional Stability Change, (length & width)	D 2126 0.5% (nom), 2% (max)
Moisture	Moisture Vapor Permeance	E 96 <+ 1.0% perm, 57.5 ng/(Pa*s*m2), 1.5 perm, 85.8ng/ (Pa*s*m2)
	Water Absorption	C 209 1.0% (max)
Insulation	Service Temperature	D 1623 -100°F – 250°F (-73°C – 121°C)
	Flame Spread, (foam core)	E 84 20 - 30 (nom), 75 (max)
	Smoke Developed, (foam core)	E 84 55 - 250 (nom), 450 (max)

Product Data and Packaging

Thickness		Long-Term Thermal Resistance (LTTR) Values ¹		Recycled Content ²			Boards per Pallet	Square Feet per Pallet		Pallets per Truck ³	
in.	mm	(hr·ft²·°F)/BTU	m²·°C/W	% Pre-Consumer	% Post-Consumer	% Total	4x4 and 4x8	4x4	4x8	4x4	4x8
1.0	25.4	5.7	1.00	5.3 / 5.2	31.8 / 29.9	37.1 / 35.1	48	768	1536	48	24
1.1	27.9	6.3	1.10	5.2 / 5.2	30.0 / 28.1	35.3 / 33.3	41	656	1312		
1.2	30.5	6.8	1.20	5.2 / 5.2	28.4 / 26.6	33.6 / 31.76	38	608	1216		
1.25	31.8	7.1	1.25	5.2 / 5.2	27.7 / 25.8	32.9 / 31.0	35	560	1120		
1.3	33.0	7.4	1.30	5.3 / 5.3	27.0 / 25.2	32.3 / 30.4	35	560	1120		
1.4	35.6	8.0	1.41	5.3 / 5.2	25.7 / 23.9	31.0 / 29.2	32	512	1024		
1.5	38.1	8.6	1.51	5.2 / 5.2	24.5 / 22.8	29.8 / 28.0	32	512	1024		
1.6	40.6	9.1	1.61	5.2 / 5.2	23.4 / 21.7	28.7 / 27.0	28	448	896		
1.7	43.2	9.7	1.71	5.2 / 5.2	22.4 / 20.8	27.7 / 26.0	27	432	864		
1.75	44.5	10.0	1.76	5.2 / 5.2	22.0 / 20.4	27.2 / 25.6	27	432	864		
1.8	45.7	10.3	1.81	5.2 / 5.2	21.5 / 19.9	26.7 / 25.1	25	400	800		
1.9	48.3	10.8	1.91	5.2 / 5.2	20.7 / 19.1	25.9 / 24.3	24	384	768		
2.0	50.8	11.4	2.01	5.2 / 5.2	19.9 / 18.4	25.1 / 23.6	24	384	768		
2.1	53.3	12.0	2.11	5.2 / 5.2	19.2 / 17.7	24.4 / 22.9	21	336	672		
2.2	55.9	12.6	2.22	5.2 / 5.2	18.5 / 17.1	23.7 / 22.3	20	320	640		
2.3	58.4	13.2	2.32	5.2 / 5.2	17.9 / 16.5	23.1 / 21.7	20	320	640		
2.4	61.0	13.8	2.43	5.2 / 5.2	17.3 / 16.0	22.5 / 21.1	19	304	608		
2.5	63.5	14.4	2.53	5.2 / 5.2	16.8 / 15.4	22.0 / 20.6	19	304	608		
2.6	66.0	15.0	2.64	5.2 / 5.1	16.3 / 15.0	21.4 / 20.1	18	288	576		
2.7	68.6	15.6	2.74	5.2 / 5.1	15.8 / 14.5	21.0 / 19.7	17	272	544		
2.8	71.1	16.2	2.85	5.2 / 5.1	15.3 / 14.1	20.5 / 19.2	16	256	512		
2.9	73.7	16.8	2.96	5.2 / 5.1	14.9 / 13.7	20.1 / 18.8	16	256	512		
3.0	76.2	17.4	3.06	5.2 / 5.1	14.5 / 13.3	19.7 / 18.4	16	256	512		
3.1	78.7	18.0	3.17	5.1 / 5.1	14.1 / 12.9	19.3 / 18.1	14	224	448		
3.2	81.3	18.6	3.28	5.1 / 5.1	13.8 / 12.6	18.9 / 17.7	14	224	448		
3.25	82.6	18.9	3.33	5.1 / 5.1	13.6 / 12.4	18.7 / 17.6	14	224	448		
3.3	83.8	19.2	3.39	5.1 / 5.1	13.4 / 12.3	18.6 / 17.4	14	224	448		
3.4	86.4	19.9	3.50	5.1 / 5.1	13.1 / 12.0	18.2 / 17.1	13	208	416		
3.5	88.9	20.5	3.61	5.1 / 5.1	12.8 / 11.7	17.9 / 16.8	13	208	416		
3.6	91.4	21.1	3.72	5.1 / 5.1	12.5 / 11.4	17.6 / 16.5	12	192	384		
3.7	94.0	21.7	3.82	5.1 / 5.1	12.2 / 11.1	17.3 / 16.3	12	192	384		
3.75	95.3	22.0	3.88	5.1 / 5.1	12.0 / 11.0	17.2 / 16.1	12	192	384		
3.8	96.5	22.3	3.94	5.1 / 5.1	11.9 / 10.9	17.0 / 16.0	12	192	384		
3.9	99.1	23.0	4.05	5.1 / 5.1	11.7 / 10.7	16.8 / 15.8	12	192	384		
4.0	101.6	23.6	4.16	5.1 / 5.1	11.4 / 10.4	16.5 / 15.5	12	192	384		
4.1	104.0	24.2	4.26	5.1 / 5.1	11.2 / 10.2	16.3 / 15.3	11	176	352		
4.2	107.0	24.9	4.39	5.1 / 5.1	10.9 / 10.0	16.0 / 15.1	11	176	352		
4.3	109.0	25.5	4.49	5.1 / 5.1	10.7 / 9.8	15.8 / 14.9	11	176	352		
4.4	112.0	26.1	4.60	5.1 / 5.1	10.5 / 9.6	15.6 / 14.7	10	160	320		
4.5	114.0	26.8	4.72	5.1 / 5.1	10.3 / 9.4	15.4 / 14.5	10	160	320		

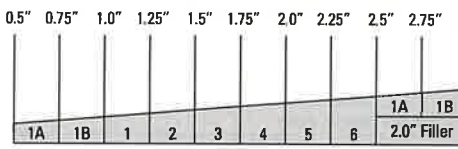
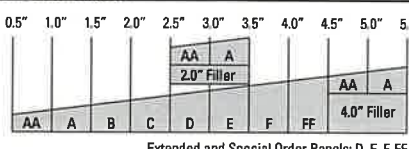
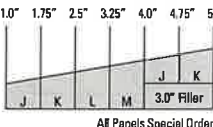
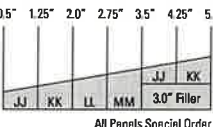
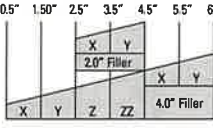
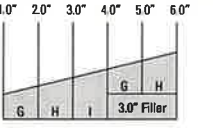
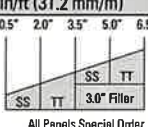
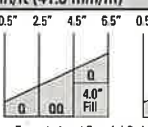
1. The Long-Term Thermal Resistance (LTTR) values were determined in accordance with CAN/ULC S770 at 75°F (24°C). The ultimate R-Value of these products will depend on individual installation circumstances.

2. Value represents average results (Grade 2/Grade 3). 3. Assumes 48' flatbed truck.

Refer to the Safe for Use instructions and product label prior to using this product. The Safe for Use instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Johns Manville Tapered Polyiso Offerings

Please refer to the previous page for typical physical properties.

Panel Desig.	Slope	Dimension		LTTR* Value Nominal	Pieces per Unit	Square Foot per Unit	Brd Ft per Unit	Slope Profiles
		Thin	Thick					
1/16 in/ft (5.2 mm/m)								
1A	1/16	0.5	0.75	3.6	70	1120	700	
1B	1/16	0.75	1	5.0	50	800	700	
1	1/16	1	1.25	6.4	38	608	684	
2	1/16	1.25	1.5	7.8	32	512	704	
3	1/16	1.5	1.75	9.3	28	448	728	
4	1/16	1.75	2	10.7	22	352	660	
5	1/16	2	2.25	12.1	20	320	680	
6	1/16	2.25	2.5	13.6	18	288	684	All Panels Special Order
1/8 in/ft (10.4 mm/m)								
AA	1/8	0.5	1	4.3	64	1024	768	
A	1/8	1	1.5	7.1	38	608	760	
B	1/8	1.5	2	10.0	26	416	728	
C	1/8	2	2.5	12.9	20	320	720	
D**	1/8	2.5	3	15.9	16	256	704	
E**	1/8	3	3.5	18.9	14	224	728	
F**	1/8	3.5	4	22.1	12	192	720	
FF**	1/8	4	4.5	25.3	10	160	680	Extended and Special Order Panels: D, E, F, FF
R	1/8	0.75	1.25	5.7	44	704	704	
S	1/8	1.25	1.75	8.6	30	480	720	
T	1/8	1.75	2.25	11.4	22	352	704	
U	1/8	2.25	2.75	14.4	16	256	640	
V	1/8	2.75	3.25	17.4	14	224	672	
W	1/8	3.25	3.75	20.5	12	192	672	All Panels Special Order
3/16 in/ft (15.6 mm/m)								
J	3/16	1	1.75	7.8	32	512	704	
K	3/16	1.75	2.5	12.1	20	320	680	
L**	3/16	2.5	3.25	16.6	16	256	736	
M**	3/16	3.25	4	21.2	12	192	696	
JJ	3/16	0.5	1.25	5.0	52	832	728	
KK	3/16	1.25	2	9.3	28	448	728	
LL**	3/16	2	2.75	13.6	18	288	691	
MM**	3/16	2.75	3.5	18.2	14	224	694	
G	1/4	1	2	8.6	30	480	720	
H	1/4	2	3	14.4	16	256	640	
I**	1/4	3	4	20.5	12	192	672	
X	1/4	0.5	1.5	5.7	48	768	768	
Y	1/4	1.5	2.5	11.4	24	384	768	
Z**	1/4	2.5	3.5	17.4	16	256	768	
ZZ**	1/4	3.5	4.5	23.6	12	192	768	
1/4 in/ft (20.8 mm/m)								
G	1/4	1	2	8.6	30	480	720	
H	1/4	2	3	14.4	16	256	640	
I**	1/4	3	4	20.5	12	192	672	
X	1/4	0.5	1.5	5.7	48	768	768	
Y	1/4	1.5	2.5	11.4	24	384	768	
Z**	1/4	2.5	3.5	17.4	16	256	768	
ZZ**	1/4	3.5	4.5	23.6	12	192	768	
3/8 in/ft (31.2 mm/m)								
SS	3/8	0.5	2	7.1	36	576	720	
TT**	3/8	2	3.5	15.9	16	256	704	
1/2 in/ft (41.6 mm/m)								
Q	1/2	0.5	2.5	8.6	32	512	768	
QQ**	1/2	2.5	4.5	20.5	12	192	672	
XX	1/2	1	3	11.4	22	352	704	
Extended and Special Order Panels: QQ								
Special Order								

* (hr·ft²·°F/Btu)

** Extended panels require less adhesive and less labor.

Tapered Recycle Content:

Recycled content is dependent upon average thickness. To calculate, match the average thickness of Tapered ENRGY 3 to the thickness of Flat ENRGY 3. Use the number from Flat ENRGY 3 as your recycled content.

Refer to the Safe for Use instructions and product label prior to using this product. The Safe for Use instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

RS-5137 2-19 (Replaces 10-17)



JM® DensDeck® Prime Roof Board

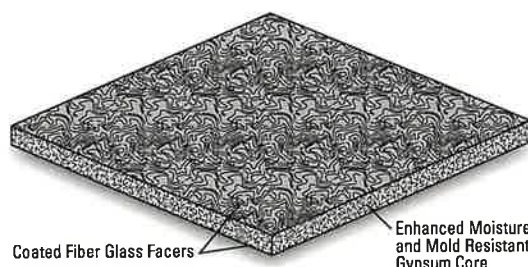
Enhanced Coated Glass Mat Faced Gypsum Cover Board

Meets the requirements of ASTM C 1177

Features and Components

Enhanced Face Mat: Coated fiberglass facer ideal for fully adhered systems provides a broader compatibility and higher performance with roofing adhesives.

Fire Performance: FM Class 1 for fire barrier requirements and UL Class A unlimited slope with excellent surface burning characteristics. 5/8" thickness meets the requirements of Type X per ASTM C 1177.



Component
B Cover Board
Multi-Ply Single Ply
Type
GY Gypsum
LT Low Thermal

System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
Compatible with all Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
Compatible with the selected Single Ply systems above							

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

Peak Advantage® Guarantee Information

Systems	Guarantee Term*
When used in most multi-ply and single ply systems	10, 15, or 20 years

* Contact JM Technical Services for specific systems or terms over 20 years.

Codes and Approvals



Installation/Application



Cold Applied



Urethane
Adhesive



Mechanically
Fastened

Refer to the Application Guides and Detail Drawings for instructions.

Packaging and Dimensions

Size	4' x 4' (1.22 m x 1.22 m)	
Thickness, nom	¼" (6.4 mm)	½" (12.7 mm)
Weight/Board, nom	19 lb (8.6 kg)	32 lb (14.5 kg)
Coverage/Pallet	960 ft² (89 m²)	800 ft² (74 m²)
Boards/Pallet	60	50
Pallet Weight	1,140 lb (517 kg)	1,600 lb (726 kg)
Pallets per Truck*	40	29

Size	4' x 8' (1.22 m x 2.44 m)		
Thickness, nom	¼" (6.4 mm)	½" (12.7 mm)	¾" (15.9 mm)
Weight/Board, nom	38 lb (17.2 kg)	64 lb (29.0 kg)	80 lb (36.3 kg)
Coverage/Pallet	1,344 ft² (125 m²)	960 ft² (89 m²)	960 ft² (89 m²)
Boards/Pallet	42	30	30
Pallet Weight	1,596 lb (724 kg)	1,920 lb (871 kg)	2,400 lb (1089 kg)
Pallets per Truck*	28	24	18

* Assumes 48' flatbed truck.

DensDeck® is registered trademark of Georgia-Pacific Gypsum LLC. DensDeck® is manufactured by Georgia-Pacific Gypsum LLC and is marketed by Johns Manville as JM® DensDeck®.

Note: Technical information on this data sheet is intended to be used as a general guideline only and is subject to change without notice. Contact your JM Sales Representative for further details.

Refer to the Safe Use Instructions and product label prior to using this product. The Safe Use Instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

RS-5595 2-17 (Replaces 3-16)



JM® DensDeck® Prime Roof Board

Enhanced Coated Glass Mat Faced Gypsum Cover Board

Meets the requirements of ASTM C 1177

Typical Physical Properties

Test		ASTM	JM DensDeck Prime Roof Board		
			¼" (6.4 mm)	½" (12.7 mm)	⅝" (15.9 mm)
Strength	Compressive Strength, psi (kPa), nom	C 473	900 (6,205)		
	Flexural Strength, lb, parallel, min	C 473	40	80	100
	Bending Radius, ft (m), max	NA	4 (1.2)	6 (1.8)	8 (2.4)
Moisture	Moisture Vapor Permeance, perms (ng/(Pa·s·m²), min	E 96	30 (1,710)	23 (1,300)	17 (970)
	Water Absorption, % by wt, max	C 1177	<10		
	Surface Water Absorption, grams, nom	C 473 method B	<2.0		
	Mold Resistance	D 3273	10		
Installation	Flute Span, in (cm), max	E 661	2 ⅝ (6.7)	5 (12.7)	8 (20.3)
	Weight, lb/ft² (kg/m²), nom	NA	1.2 (5.9)	2.0 (9.8)	2.5 (12.2)

Thermal Performance

Thickness		Nominal R-Value (Resistance)	
in.	mm	(hr•ft²•°F)/BTU	m²•°C/W
¼	6.4	0.28	0.049
½	12.7	0.56	0.099
⅝	15.9	0.67	0.118
Test	ASTM	JM DensDeck Prime Roof Board	
Flame Spread	E 84	0	
Smoke Developed	E 84	0	
Non combustible in accordance with ASTM E 136			

Refer to the Safe Use Instructions and product label prior to using this product. The Safe Use Instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Note: Technical information on this data sheet is intended to be used as a general guideline only and is subject to change without notice. Contact your JM Sales Representative for further details.

RS-5595 2-17 (Replaces 3-16)

Material meets the requirements of ASTM D 2178, Type VI

Features and Components

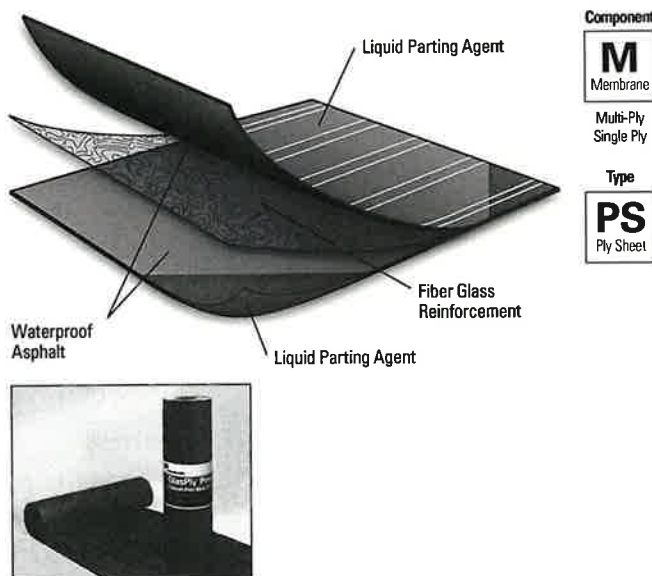
GlasPly Premier is intended for use as an interply in any built up roofing or modified bitumen roofing system.

Excellent Porosity: Allows the product to readily accept hot asphalt and disperse it throughout the entire felt, to stabilize the asphalt after cooling.

Asphalt Impregnated, Fiber Glass Reinforcement Mat: Delivers high tensile strength to resist splitting that can be caused by rooftop stresses. Low moisture, excellent dimensional stability and resistance to rot make it an ideal replacement for organic ply sheets. Provides a solid dimensionally stable substrate for other roofing membrane components.

Laying Lines: Before the product is wound into rolls, it is imprinted with laying lines on the top surface so the roofing mechanic can install the felt with the proper exposure and provide the correct number of plies

Surfacing: Liquid parting agent eliminates sticking when the felt is unrolled.



System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR*		APP*		SBS*		
	HA	CA	CA	HW	HA	CA	HW
							SA

Compatible with the selected Multi-Ply systems above

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

*Suitable as an intermediate ply set in hot asphalt for HA, CA, or HW SBS, APP or BUR membranes.

Single Ply	TPO		PVC**		EPDM		
	MF	FA	MF	FA	MF	FA	BA

Compatible with the selected Single Ply systems above

**Suitable as an intermediate ply in hot asphalt applied hybrid PVC fleece back membrane systems.

Energy and the Environment

Pre-Consumer Recycled Content	0%
Post-Consumer Recycled Content	0%

Peak Advantage® Guarantee Information

Systems	Guarantee Term
Dependent on system	Up to 30 years

*Contact JM Technical Services for specific system requirements or guarantee terms.

Codes and Approvals



Installation/Application



Hot Asphalt

- Refer to JM BUR application guides and detail drawings for instructions

Packaging and Dimensions

Roll Size	36" x 177' (914 mm x 53.95 m)
Roll Coverage (net)	500 ft² (46.45 m²)
Roll Coverage (gross)	531 ft² (49.33 m²)
Roll Weight (nom)	34 lb (15.4 kg)
Rolls per Pallet	25
Pallets per Truck*	48

*Assumes 48' flatbed truck.



GlasPly® Premier

Premium Fiber Glass-Reinforced,
Asphalt-Coated Ply Sheet VI

Material meets the requirements of ASTM D 2178, Type VI

Tested Physical Properties

Physical Properties		ASTM Test Method	Standard Type II	GlasPly Premier
Strength	Breaking Strength @ 73.4° F, (<i>min</i>) (lbf/in)			
	Longitudinal (with fiber grain)	D 146	≥ 60	70
	Transverse (across fiber grain)	D 146	≥ 60	61
	Pliability			
	Longitudinal (with fiber grain)	D 2178	No Failures	Pass
	Transverse (across fiber grain)	D 2178	No Failures	Pass
Performance	Net Dry Mass - Asphalt Glass Felt, (lb/100ft²) – Individual Roll	D 228	≥ 6.0	7.0
	Mass per Area of Desaturated Glass Felt, (lb/100ft²)	D 228	≥ 1.7	1.99
	Moisture at Point of Manufacture, (<i>max</i>) (%) – As Received	D 146	≤ 1.0	0.6
	Bituminous Saturant (Asphalt), (lb/100ft²)	D 228	≥ 3.0	4.6
	Ash, (%)	D 228	70 – 88	77
Installation	Unrolling @ 50° F and 140° F, (pass/fail)	D 2178	No Damage	Pass

Refer to the Safety Data Sheet and product label prior to using this product.
The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at
www.jm.com/roofing.

RS-2022 12-16 (Replaces 12-15)



ASPHALT PRIMER

Meets the requirements of ASTM D 41, Type II

Features and Components

Use: Used to prepare substrates prior to the application of hot asphalt or cold adhesives in BUR, SBS and APP modified bitumen roofing systems. Do not use Asphalt Primer as a finish coat on roofs.

Type: One-part, specification grade, penetrating priming solution.

Substrates: Compatible with concrete; gypsum; masonry; block; brick; and metal surfaces.

Color: Black

Features: Low VOC and sprayable.



System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
Used to prime Substrates in all Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
Do not use in Single Ply systems							

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

Energy and the Environment

Maximum VOC	< 350 g/l (calculated)
-------------	------------------------

Physical Properties

Property	Asphalt Primer
Consistency @ 77°F (25°C)	Spray Grade

Codes and Approvals



Precautions

Johns Manville Asphalt Primer is a combustible material and should be shipped and stored away from open flames, heat or sources of ignition. Keep all pails tightly sealed while in storage. It should be used only in well-ventilated areas. It may cause eye, skin and respiratory irritation, and is harmful or fatal if swallowed. Avoid contact with skin. Use impervious clothing and rubber gloves to avoid prolonged or repeated contact with skin. Read the container label and follow all safety instructions.

Installation/Application



Spray



Brush

- Apply between 40° and 100° F (4° and 38° C)
- All surfaces must be swept clean and free from oil, grease, rust, scale, loose paint and dirt.
- Stir in the container before applying. Apply using a brush or commercial grade spray equipment. Do Not Thin.

Clean-Up and Disposal

All equipment can be cleaned with mineral spirits. Use care when handling solvents. Clean hands with waterless hand cleaner.

Packaging and Coverage

Container Sizes	4.75 gal (17.9 l) pail
Coverage Rate*	1/2 to 1 gal/100 ft ² (0.41 to 0.61 l/m ²)

* Coverage, open and dry time rates can vary dramatically depending on the particular substrate and environmental conditions. Coverage rates stated herein are approximate only. If FM Global® or UL® approval is required, consult specific RoofNavSM or the UL Certifications Directory for specific application rates.

Storage

Shelf Life	24 months from manufacture date
Storage Conditions	Clean, dry, indoor environment in an unopened or tightly sealed container
Temperature Range	60°F to 80°F (16°C to 27°C) - Protect from freezing

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.



Product Information Sheet

TRUMBULL #1126 SEBS MODIFIED ASPHALT

Uses

Trumbull's #1126 Modified Mopping Asphalt is suitable for use in Built-Up Roofing applications and Waterproofing treatment when specified.

Description

Trumbull # 1126 is formulated from selected petroleum based materials and blended with SEBS polymer to obtain a high softening point and mid-range penetration value. It is supplied hot in tank wagons or cold in cartons.

Typical Physical Properties

<u>Property</u>	<u>Range</u>
Color	Dark Brown to Black
Softening Point, ASTM D-36	195°F - 240°F
Penetration @ 77°F, ASTM D-5 100 grams, 5 sec.	25-40 dmm
Flash Point (COC), ASTM D-92	525 °F Minimum
Solubility in Trichloroethylene, ASTM D-2042	99.0% Minimum
Specific Gravity @ 60°F, ASTM D-70	1.000+/- 0.025
Weight / Gallon @ 60°F	8.32 +/- 0.2 lbs.
Elongation @ 77°F, ASTM D-412	>1000% (typical)
Equiviscous Temperature Range ASTM D-4402	TBD

Sept-01

Asphalt Technology Laboratory – 7800 West 59th Street, Summit, IL 60501 - 708.594.6970



Trumbull® TRULO® MAX

Low-Odor, Low-Fuming Asphalt



PRODUCT SPECIFICATION SHEET

OPTIMUM PERFORMANCE—WITHOUT THE ODOR

Trumbull® TruLo® Max asphalt is made from high quality asphalt and manufactured at an Owens Corning® Trumbull facility. This mopping grade asphalt comes in Type III and IV (Types I & II are made to order) and utilizes a patented odor reducing technology specifically formulated to neutralize asphalt odor and a polymer ingredient that forms a fume-suppressing skim layer on the surface of the asphalt in the kettle.

TruLo Max meets or exceeds all of the physical property requirements for **ASTM D312-15 (Standard Specification for Asphalt Used in Roofing)** and can be used on the construction of Built Up Roofing systems or utilized as a high quality adhesive used to adhere various insulations and membranes.

MORE SCIENCE. LESS SMELL. LESS FUMES.

Owens Corning® odor and fume reduction chemistries significantly reduce asphalt odor and fumes. The dual-technology solution results in:

- Up to 60% odor reduction as compared to standard asphalts.
- Up to 90% of lower fumes at the kettle

MAXIMUM FUME REDUCTION (UP TO 90%)

Building occupants don't want to be bothered by the odor of typical asphalts. TruLo Max:

- Helps avoid night and weekend scheduling due to potential odor issues.
- Allows for installations even with the most odor-sensitive sites, such as schools, restaurants and hospitals.

PRODUCT DATA

- Products are serviced in quantities up to full truckloads in cardboard cartons.
 - Cartons (Approximate weight 100 lbs)
 - 18 or 24 kegs/pallet
- Made in the USA
- Available nationwide

STORAGE

- Store in original unopened packaging to protect from exposure to sunlight and moisture.
- Shelf life will be extended if material is placed out of the weather in a clean, dry area.

ADHESIVE PROPERTIES

Often referred to as a hot melt or thermoplastic adhesive, asphalt has many performance characteristics that make it an outstanding adhesive. From its self leveling capabilities to its excellent adhesion and moisture resistance properties, asphalt can be used as an adhesive for numerous application(s) and has a low installed cost compared to other options.

PHYSICAL PROPERTIES FOR TRULO® MAX ASPHALT

	TYPE I Min. Max.		TYPE II Min. Max.		TYPE III Min. Max.		TYPE IV Min. Max.	
Softening Point (°F)	135	151	158	176	185	205	210	225
Penetration Units: @ 77°F	18	60	18	40	15	35	12	25
Flash Point (°F) Min.	575		575		575		575	
Ductility @ 77°F (cm) Min.	10		3.0		2.5		1.5	
Solubility in Trichloroethylene %	99.0		99.0		99.0		99.0	
Maximum Application Temperature for Hand Mopping 125° CPS	370		385		430		455	
Maximum Application Temperature for Machine Spreader EVT 75° CPS	400		420		470		485	

PRECAUTIONS

- Follow all Safety practices recommended by the National Roofing Contractors Association (NRCA) for working with hot asphalt materials
- Refer to the Safety Data Sheet (SDS) for further information.
- Additional batch specific EVT & Flashpoint information can be obtained from the Product Information Sheet (PIS) that accompanies the asphalt.
- To control explosion hazards and fume exposure and maintain quality it is very important not to overheat the asphalt. **The maximum kettle temperature used with this product should not exceed 550°F.**



www.trumbullasphalt.com



**OWENS CORNING
ROOFING AND ASPHALT, LLC**
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659
1-800-GET-PINK®
www.owenscorning.com

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10100 W Ute Ave (80127)
PO Box 625001
Littleton, CO 80162-5001
800-922-5922
877-403-1747 Fax

Dear Building Owner:

Attached to this letter is the Peak Advantage® Roofing Systems Guarantee for the new roof recently installed on your building. We believe your building is now protected by one of the finest commercial roofing systems available on the market today. We appreciate the opportunity to provide you with a level of protection unmatched in the industry.

There are some things you should be aware of before you file this document away in a safe place:

1. This is NOT a maintenance agreement or an insurance policy. Johns Manville liability is strictly governed by the terms of the guarantee. If you have any questions about this Guarantee, contact Johns Manville Guarantee Services at the appropriate number given below.
2. You are required to perform routine maintenance on the roofing system to keep the coverage to the guarantee intact. For your convenience, a list of maintenance items is printed on the back of the guarantee.

We hope that you never experience any difficulty with your roofing system. If you do have a problem, you should contact Johns Manville Guarantee Services at the appropriate numbers provided. Please have the guarantee on hand so that we may more efficiently handle your inquiry.

Our Technical Services Department is staffed by some of the most experienced roofing professionals in the roofing industry. Please call on them for any questions you might have about commercial and industrial roofing and Johns Manville products.

Sincerely,

Eric Olson
Manager, Guarantee Services
Johns Manville Roofing Systems Group
(800) 922-5922
gsu@jm.com
www.jm.com



Peak Advantage Guarantee



Building Owner:
LEXINGTON FAYETTE URBAN CO. GOVERNMENT
301 LISLE INDUSTRIAL ROAD
LEXINGTON, KY 40511

Guarantee Number: ANM128038883
Expiration Date: September 1, 2040
Job Name: TOWN BRANCH WWTP
Date of Completion: September 1, 2020

Building Name:
TOWN BRANCH WWTP
301 LISLE INDUSTRIAL ROAD
LEXINGTON, KY 40511

Approved Roofing Contractor:
KALKREUTH ROOFING & SHEET METAL INC
2131 CAPSTONE DRIVE
LEXINGTON, KY 40511

Terms & Maximum Monetary Obligation to Maintain a Watertight Roofing System.

Years: 20 Year

\$ No Dollar Limit

Coverage:

The components of the Roofing System covered by this Guarantee are:

Total Squares: 60

Sec.	Sqs.	Roof Type	Membrane Spec.	Insulation Type			Cover Board
				Layer 1	Layer 2	Layer 3	
1	6	SBS	4GIG	ENRGY 3			JM Densdeck Prime Roof Board

Accessories:	Type	Product Name	Quantity
	Expand-O-Flash (1) Style:		lin. ft.
	Expand-O-Flash (2) Style:		lin. ft.
	Expand-O-Flash (3) Style:		lin. ft.
	Fascia Style:		lin. ft.
	Copings Style:		lin. ft.
	Drains (1) Style:		ea.
	Vents Style:		ea.

Sec.	Sqs.	Roof Type	Membrane Spec.	Insulation Type			Cover Board
				Layer 1	Layer 2	Layer 3	
2	54	SBS	4GIG	ENRGY 3			JM Densdeck Prime Roof Board

Accessories:	Type	Product Name	Quantity
	Expand-O-Flash (1) Style:		lin. ft.
	Expand-O-Flash (2) Style:		lin. ft.
	Expand-O-Flash (3) Style:		lin. ft.
	Fascia Style:		lin. ft.
	Copings Style:		lin. ft.
	Drains (1) Style:		ea.
	Vents Style:		ea.

These Johns Manville Guaranteed components are referred to above as the "Roofing System" and ALL OTHER COMPONENTS OF THE OWNER'S BUILDING ARE EXCLUDED FROM THE TERMS OF THIS GUARANTEE, including any amendments thereto.

Johns Manville* guarantees to the original Building Owner that during the Term commencing with the Date of Completion (as defined above), JM will pay for the materials and labor reasonably required in Johns Manville's sole and absolute discretion to repair the Roofing System to return it to a watertight condition if leaks occur due to: ordinary wear and tear, or deficiencies in any or all of the Johns Manville component materials of the Roofing System, or workmanship deficiencies only to the extent they arise solely out of the application of the Roofing System. Non-leaking blisters are specifically excluded from coverage. Should any investigation or inspection reveal the cause of a reported leak to be outside the scope of coverage under this Guarantee, then all such investigation and inspection costs shall be borne solely by the Building Owner.

WHAT TO DO IF YOUR ROOF LEAKS

If you should have a roof leak please refer to directions on the reverse side.

LIMITATIONS AND EXCLUSIONS

This Guarantee is not a maintenance agreement or an insurance policy; therefore, routine inspections and maintenance are the Building Owner's sole responsibility (see reverse side of this document). This Guarantee does not obligate JM to repair or replace the Roofing System, or any part of the Roofing System, for leaks or appearance issues resulting, in whole or in part, from one or more of the following (a) natural disasters including but not limited to the direct or indirect effect of lightning, flood, hail storm, earthquake, tornados, hurricanes or other extraordinary natural occurrences and/or wind speeds in excess of 55 miles per hour; (b) misuse, abuse, neglect or negligence; (c) installation or material failures other than those involving the component materials expressly defined above as the Roofing System or exposure of the Roofing System components to damaging substances such as oil, fertilizers, or solvents or to damaging conditions such as vermin; (d) any and all (i) changes, alterations, repairs to the Roofing System, including, but not limited to, structures, penetrations, fixtures or utilities (including vegetative and solar overlays) based upon or through the Roofing System as well as any (ii) changes to the Building's usage that are not pre-approved in writing by JM; (e) failure of the Building substrate (mechanical, structural, or otherwise and whether resulting from Building movement, design defects or other causes) or improper drainage; (f) defects in or faulty/improper design, specification construction or engineering of the Building or any area over which the Roofing System is installed; (g) defects in or faulty/improper architectural, engineering or design flaws of the Roofing System or Building, including, but not limited to, design issues arising out of improper climate or building code compliance; or (h) in instances of a recover project, Johns Manville is not responsible for the performance of pre-existing materials that predated the recover. Instead, Johns Manville's sole responsibility in recover systems where JM materials are adhered to existing materials is limited to the installed recover JM Roofing materials up to the wind speed listed herein. Guarantee coverage is limited to replacing recover JM Roofing materials only (and not the pre-existing materials – which is the Owner's responsibility) as required to return the roofing system to a watertight condition due to a claim covered under the terms and conditions herein. Johns Manville is not responsible for leaks, injuries or damages resulting from any water entry from any portion of the Building structure not a part of the Roofing System, including, but not limited to, deterioration of the roofing substrate, walls, mortar joints, HVAC units and all other non-Johns Manville materials and metal components. Moreover, the Building Owner is solely and absolutely responsible for any removal and/or replacement of any overburdens, super-strata or overlays, in any form whatsoever, as reasonably necessary to expose the Roofing System for inspection and/or repair.

This Guarantee becomes effective when (1) it is delivered to Owner; and (2) all bills for installation, materials, and services have been paid in full to the Approved Roofing contractor and to JM. Until that time, this Guarantee is not in force, has no effect – and JM is under no obligation whatsoever to perform any services/work.

The Parties agree that any controversy or claims relating to this Guarantee shall be first submitted to mediation under the Construction Industry Arbitration and Mediation Rules of the American Arbitration Association (Regular Track Procedures) or to such other mediation arrangement as the parties mutually agree. No court or other tribunal shall have jurisdiction until the mediation is completed. In any action or proceeding brought against the Building Owner to enforce this Guarantee or to collect costs due hereunder, Johns Manville shall be entitled to recover its reasonable costs, expenses and fees (including expert witness' fees) incurred in any such action or proceeding, including, without limitation, attorneys' fees and expenses, and the Building Owner shall pay it.

TO THE FULLEST EXTENT PERMITTED BY LAW, JM DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND LIMITS SUCH WARRANTY TO THE DURATION AND TO THE EXTENT OF THE EXPRESS WARRANTY CONTAINED IN THIS GUARANTEE.

THE EXCLUSIVE RESPONSIBILITY AND LIABILITY OF JM UNDER THIS GUARANTEE IS TO MAKE REPAIRS NECESSARY TO MAINTAIN THE ROOFING SYSTEM IN A WATERTIGHT CONDITION IN ACCORDANCE WITH THE OBLIGATIONS OF JM UNDER THIS GUARANTEE. JM AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES TO THE BUILDING STRUCTURE (UPON WHICH THE ROOFING SYSTEM IS AFFIXED) OR ITS CONTENTS AND OR OCCUPANTS, LOSS OF TIME OR PROFITS OR ANY INCONVENIENCE, INJURY. JM SHALL NOT BE LIABLE FOR ANY CLAIM MADE AGAINST THE BUILDING OWNER BY ANY THIRD PARTY AND THE BUILDING OWNER SHALL INDEMNIFY AND DEFEND JM AGAINST ANY CLAIM BROUGHT BY ANY THIRD PARTY AGAINST JM RELATING TO OR ARISING OUT OF THE ROOFING SYSTEM OR JM'S OBLIGATIONS UNDER THIS GUARANTEE. JM AND ITS AFFILIATES SHALL NOT BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS GUARANTEE. THIS GUARANTEE DOES NOT COVER, AND EXPLICITLY EXCLUDES, ANY AND ALL INJURIES, CLAIMS AND/OR DAMAGES RESULTING, IN WHOLE OR IN PART, FROM ANY WATER ENTRY FROM ANY PORTION OF THE BUILDING STRUCTURE INCLUDING, BUT NOT LIMITED TO, THE ROOFING SYSTEM.

No one is authorized to change, alter, or modify the provision of this Guarantee other than the Manager, Guarantee Services or authorized delegate. JM's delay or failure in enforcing the terms and conditions contained in this Guarantee shall not operate as a waiver of such terms and conditions. This Guarantee is solely for the benefit of the Building Owner identified above and Building Owner's rights hereunder are not assignable. Upon sale or other transfer of the Building, Building Owner may request transfer of this Guarantee to the new owner, and JM may transfer this Guarantee, in its sole and absolute discretion only after receiving satisfactory information and payment of a transfer fee, which must be paid no later than 30 days after the date of Building ownership transfer.

In the event JM pays for repairs which are required due to the acts or omissions of others, JM shall be subrogated to all rights of recovery of the Building Owner to the extent of the amount of the repairs.

Because JM does not practice Engineering or Architecture, neither the issuance of this Guarantee nor any review of the Building's construction or inspection of roof plans (or the Building's roof deck) by JM representatives shall constitute any warranty by JM of such plans, specifications, and construction or in any way constitute an extension of the terms and conditions of this Guarantee. Any roof inspections are solely for the benefit of JM.

JM does not supervise nor is it responsible for a roofing contractor's work except to the extent stated herein, and roofing contractors are not agents of JM.

*JOHNS MANVILLE ("JM") is a Delaware corporation with its principal mailing address at P.O. Box 5108, Denver, Colorado 80217-5108.



By: Joseph Smith
Title: President Roofing Systems

Addendum(s)

Wind

This Wind Speed Rider is an addendum to Johns Manville Guarantee ANM128038883. This Wind Speed Rider is expressly limited in scope to obligate Johns Manville to address leaks, damage and/or blow offs to the existing Roofing System at the Building (if any) that result exclusively from wind speeds up to and including 115 mph as measured using the three-second gust wind speed measurement technique.

The terms of this Wind Speed Rider are subject to the conditions and limitations described both herein and in Guarantee ANM128038883, including, but not limited to, the exclusion of Johns Manville's liability for incidental and/or consequential damages to the Building upon which the Roofing System is affixed, its structure, its tenants (if any) and/or its contents (which limitations and conditions are expressly adopted and incorporated herein by this reference).

The applicable wind speed shall be determined over the lifespan of the Guarantee from the National Climatic Data Center facility located nearest to the above-identified Building Address.

This Wind Speed Rider shall not obligate Johns Manville to either address or to make any repairs to any leaks, damage and/or blow offs either resulting from or due to, either solely or collectively, the following events:

- i. Failure of any portion of the building structure, any deck substructure, or the roof decking itself including any lightweight concrete fill. Examples of structural and roof decking components include, but are not limited to joists, deck puddle welds, deck fasteners, clips, nails, beams, and/or EPS fill. Failure of the roof deck automatically renders this rider null and void whether directly causing any failure of the roofing system or not.
- ii. Failure of any portion of the perimeter wood blocking or shop fabricated metal edge on the Building.
- iii. Tornadoes or microbursts
- iv. Any and all wind borne debris.
- v. An occasion where, at any point in time over the lifespan of the roofing system and/or Guarantee, a wind event exceeds 115 mph. In such instance, this Wind Speed Rider and the original Guarantee are both automatically null and void without the need for any notice to the building Owner.
- vi. The Building Owner's failure at any time to properly maintain the roofing system at the Building in accordance with Johns Manville's Maintenance Program outlined on the back of the original Guarantee ANM128038883. Failure to properly maintain the Building Roofing System in accordance with the Johns Manville Maintenance Program shall automatically render this Wind Speed Rider and the original Guarantee null and void, without the need for any notice to the Building Owner.
- vii. The Building Owner is responsible for reporting to Johns Manville any wind event in excess of 72 mph ("Qualifying Wind Event") within 30 days, time being of the essence, in order to have the Roofing System inspected by a Johns Manville representative for a fee - which the Building Owner shall pay. Failure by the Owner to (1) notify Johns Manville of the Qualifying Wind Event within the prescribed period; (2) have the Roofing System inspected; or (3) pay Johns Manville for the inspection, shall automatically render this Wind Speed Rider and the original Guarantee null and void, without the need for any notice to the building Owner.

Johns Manville does not practice either engineering or architectural services and expressly disclaims all liability for any design or engineering related issues. As such, it is the Building Owner's sole and ultimate responsibility to (1) design and engineer the perimeter blocking attachment protocol; (2) verify that the perimeter blocking attachment protocol has been followed; (3) verify the sufficiency of the design or engineering of any of the structural components of your building, including the roofing deck, to withstand the structural load cause by a wind velocity or uplift pressure not exceeding the maximum wind velocity stated in this rider or uplift pressure generated by that velocity when calculated in accordance with ASCE 7-05; (4) verify that any upgrades to the roof decking required by the specified roofing system have been made.

JM's delay or failure in enforcing the terms and conditions contained in this Guarantee shall not operate as a waiver of such terms and conditions.

Ponding:

The subject Guarantee has been amended to include coverage against ponding water under the following conditions of coverage: — Johns Manville will not be responsible for any changes in appearance or surface imperfections caused by ponding water. — Maintenance must be performed with sufficient frequency to prevent the growth of vegetation.

Maintenance Program

The following Maintenance Program is recommended and should be implemented and followed:

1. Building Owner must notify JM Guarantee Services Unit (see below) immediately upon discovery of the leak and in no event later than ten (10) days after initial discovery of the leak, time being of the essence. Failure of the Building Owner to provide timely notice to JM Guarantee Services of any leak is a material ground for termination of the Guarantee.
2. In response to timely notice, JM will arrange to inspect the Roofing System, and
 - (i) If, in JM's sole and absolute opinion, the leak(s) is/are the responsibility of JM under this Guarantee (see Limitations and Exclusions), then JM will take prompt appropriate action to return the Roofing system to a watertight condition, or
 - (ii) If, in JM's sole and absolute opinion, the leak(s) is/are not the responsibility of JM under this Guarantee, then JM will advise the Building Owner within a reasonable time of the minimum repairs that JM believes are required to return the Roofing System to a watertight condition. If the Building Owner, at his expense, promptly and timely makes such repairs to the Roofing System (time being of the essence) then this Guarantee will remain in effect for the unexpired portion of its Term. Failure to make any of these repairs in a timely and reasonable fashion will void any further obligation of JM under this Guarantee as to the damaged portion of the Roofing System as well as any other areas of the Roofing System impacted by such failure.
3. In the event an emergency condition exists which requires immediate repair to avoid damage to the Building, its contents or occupants, then Building Owner may make reasonable, essential temporary repairs. JM will reimburse Building Owner for those reasonable repair expenses only to the extent such expenses would have been the responsibility of JM under the Guarantee.

There are a number of items not covered by this Guarantee that are the sole, exclusive responsibility of the Building Owner. In order to ensure that your new roof will continue to perform its function and to continue JM's obligations under the Guarantee, you should examine and maintain these items on a regular basis. All damage or leak investigation findings that are the direct result of non-covered maintenance items are the sole responsibility of the owner.

- Maintain a file for your records on this Roofing System, including, but not limited to, this Guarantee, invoices, and subsequent logs of all inspections performed and repairs that are made to the Roofing System.
- Inspect your Roofing System at least semi-annually. This is best done in the spring, after the Roofing System has been exposed to the harsh winter conditions, and, in the Fall after a long hot summer. It is also a good idea to examine the Roofing System for damage after severe weather conditions such as hailstorms, heavy rains, high winds, etc.
- Since these types of Roofing Systems typically have a low slope, they are easily examined. However, care must be taken to prevent falling and other accidents. JM expressly disclaims and assumes no liability for any inspections performed on the Roofing System.

When checking the Roofing System:

- Remove any debris such as leaves, small branches, dirt, rocks, etc. that have accumulated.
- Clean gutters, down spouts, drains and the surrounding areas. Make certain they allow water to flow off the Roofing System. Positive drainage is essential.
- Examine all metal flashings and valleys for rust and damage that may have been caused by wind or traffic on the Roofing System, and make certain they are well attached and sealed. Any damaged, loose, or poorly sealed materials must be repaired by a JM Approved Roofing Contractor only.
- Examine the areas that abut the Roofing System. Damaged masonry, poorly mounted counter flashing, loose caulking, bad mortar joints, and any loose stone or tile coping can appear to be a membrane leak. Have these items repaired by a JM Approved Roofing Contractor if found to be defective.
- Examine the edges of the Roofing System. Wind damage often occurs in these areas. Materials that have been lifted by the wind need to be corrected by a JM Approved Roofing Contractor.
- Examine any roof top equipment such as air conditioners, evaporative coolers, antennas, etc. Make certain they do not move excessively or cause a roof problem by leaking materials onto the Roofing System.
- Check the building exterior for settlement or movement. Structural movement can cause cracks and other problems which in turn may lead to leaks in your Roofing System.
- Examine protective coatings; any cracked, flaking, or blistered areas must be recoated.

Protecting your investment:

- Avoid unnecessary roof top traffic.
- If you allow equipment servicemen to go onto the Roofing System, advise them to be careful. Dropped tools, heavy equipment, etc. can damage the membrane. Log all such trips to the Roofing System.
- Do not allow service personnel to make penetrations into the Roofing System; these are to be made only by a JM Approved Roofing Contractor.

All the terms and conditions of this Guarantee shall be construed under the internal law of the state of Colorado without regard to its conflicts of law principles. Invalidity or unenforceability of any provisions herein shall not affect the validity or enforceability of any other provision which shall remain in full force and effect to the extent the main intent of the document is preserved.

This form is not to be copied or reproduced in any manner. This Guarantee is valid only in the United States of America.

Guarantee Services
(800) 922-5922
E-mail: gsu@jm.com
www.jm.com/roofing

Mailing Address:
Johns Manville
Guarantee Services
P.O. Box 625001
Littleton, CO 80162-5001

Shipping Address:
Johns Manville
Guarantee Services
10100 West Ute Avenue
Littleton, CO 80127

PART XII

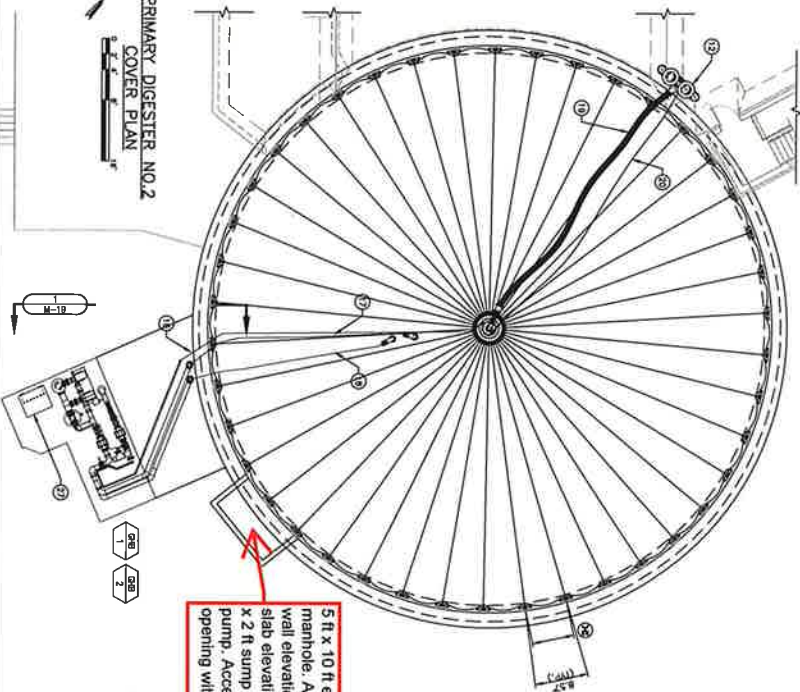
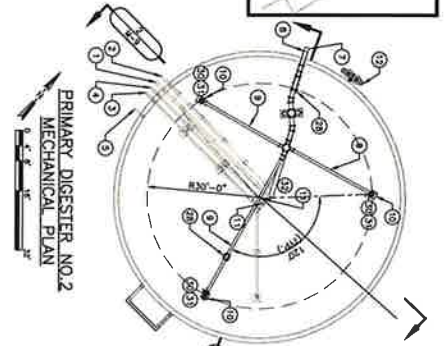
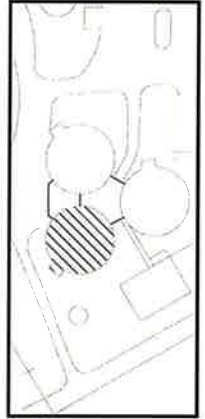
APPENDIX B

GENERAL NOTES:

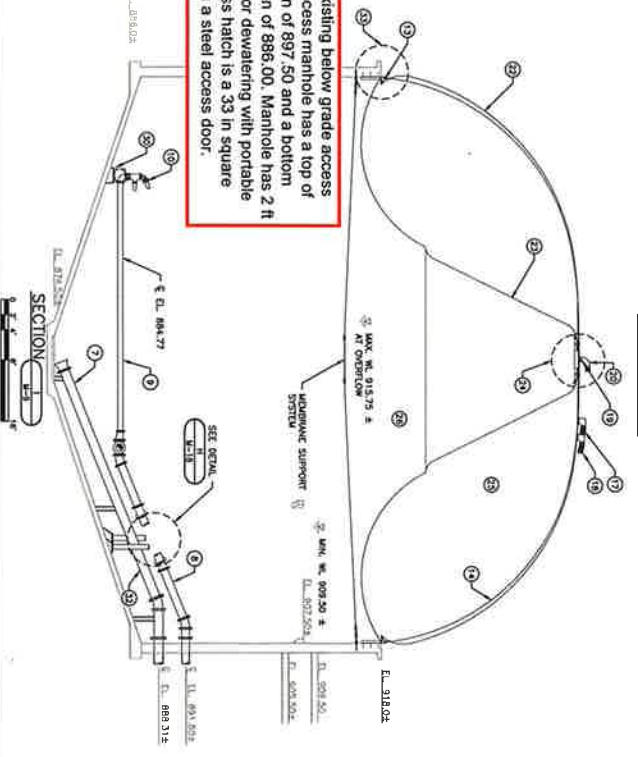
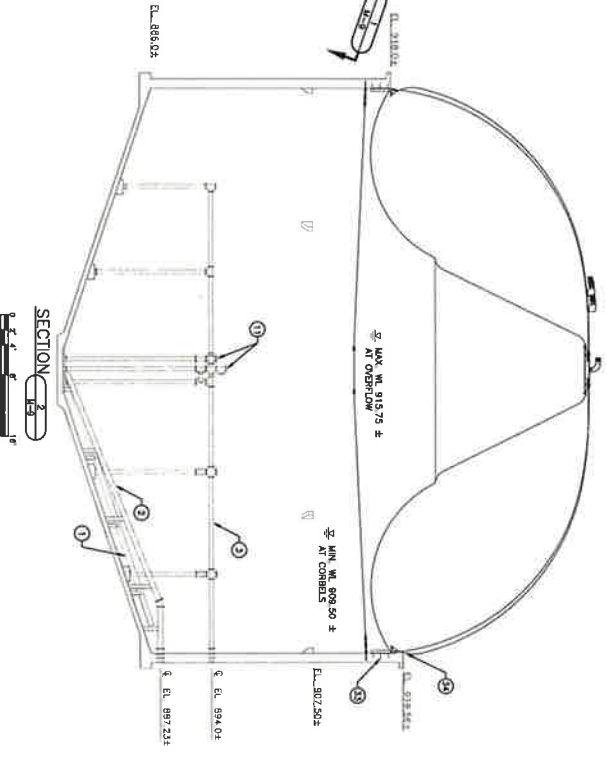
1. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS, AND ANGLES WITH EQUIPMENT MANUFACTURER.
2. CONTRACTOR SHALL VERIFY NUMBER AND LOCATION OF ALL EQUIPMENT MANUFACTURER'S CONNECTIONS.
3. COVER APPROPRIATELY MAY BE ROUTED INTO VIEW IN SECTIONS.
4. SEE CHECKING NOTES ON DRAWING M-8.

KEY NOTES:

1. 6" DS DRAINOFF.
2. 6" ALTERNATE DS DRAINOFF.
3. 6" LOW LEVEL SF.
4. 6" HIGH LEVEL SF.
5. 6" DS RECIRCULATION SECTION.
6. NOT USED.
7. 10" DI SUCTON FOR WP NO.2.
8. 14" DI DISCHARGE FOR WP NO.2.
9. 8" DI PIPE TO WIRING SYSTEM EXCHANGE NOZZLES.
10. WIRING SYSTEM NOZZLE ASSEMBLY: SEE DETAIL M-10.
11. INSTALL BLIND FLANGE ON TEE TO HIGH LEVEL SLUDGE DISCHARGE AND DISCHARGE DRAINING PIPING ABOVE. SEE M-9 FOR DRAINING ABOVE.
12. 6" PRESSURE/MANUAL ROLET ASSEMBLY SEE M-6.
13. CABLE BRACKETS.
14. 5/8" RESTRAINT CABLE, TYPICAL OF 42.
15. 6" FLEX HOSE-AIR PRESSURE SENSING LINE.
16. 1 1/2" FLEX HOSE-AIR PRESSURE SENSING LINE.
17. 6" FLEX HOSE-AIR PUMP LINE.
18. 6" FLEX HOSE-AIR N/O/T.
19. 6" FLEX HOSE-DIGESTER GAS TAKE-OFF.
20. 1 1/2" FLEX HOSE-DIGESTER GAS TAKE-OFF.
21. NOT USED.
22. AIR HYDRAULIC.
23. GAS HYDRAULIC.
24. SEE DETAIL M-11.
25. AIR CHAMBER.
26. GAS CHAMBER.
27. AIR FOR SPIN AND CONTROL PANEL AT GROUND LEVEL. SEE DETAIL M-12.
28. CONCRETE PRE-SUPPORT DETAIL: SEE DETAIL M-13.
29. ELEVATED PRE-SUPPORT DETAIL: SEE DETAIL M-14.
30. NOT ALL SHOWN.
31. WIRING NOZZLE BASE SUPPORT DETAIL: SEE DETAIL M-15.
32. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS, AND FIELD VERIFY DRAINING DS DRAINOFF PIPING AND SLUDGE PROVIDE CONCRETE PRE-SUPPORTS FOR CONCRETE PIPING.
33. PROVIDE PIPING SECTION PIPE ABOVE DRAINING PIPING.
34. WIRING SECTION PIPE ABOVE DRAINING PIPING.
35. WIRING COVER SEAL RING AND CABLE MOUNTING SHOWN AND SPECIFIED AND SHALL BE INSTALLED AS SHOWN AND SPECIFIED BY COVER MANUFACTURER. SEE DETAIL M-16.
36. PROVIDE PVC PROTECTIVE SHEETING WHEREVER WIRING COVER IS IN CONTACT WITH WALL, FASSTON WITH 316 STAINLESS STEEL/STAINLESS STEEL.



5 ft x 10 ft existing below grade access manhole. Access manhole has a top of wall elevation of 897.50 and a bottom slab elevation of 886.00. Manhole has 2 ft x 2 ft sump for dewatering with portable pump. Access hatch is a 35 in square opening with a steel access door.



NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	06/11/20

**PRIMARY DIGESTER CONTROL BUILDING
DIGESTER NO. 2 MECHANICAL PLAN**

TOWN BRANCH WASTEWATER TREATMENT PLANT
PRIMARY DIGESTER COMPLEX IMPROVEMENTS PROJECT
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KENTUCKY

STRAND ASSOCIATES

JOB NO.
2011-120

PROJECT NAME
WASTE WATER

SHEET
43

M-9