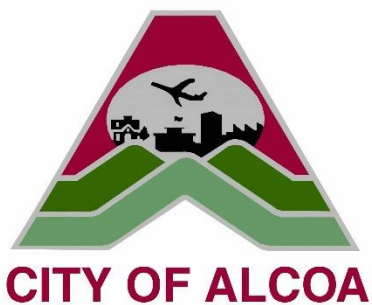


SPECIFICATIONS AND CONTRACT DOCUMENTS

WERNER AVENUE DRAINAGE INFRASTRUCTURE
From Faraday Street to Pistol Creek
Job # 25-013



Date: November 2025

Development Services Department
725 Universal Street
City of Alcoa, TN 37701

Alcoa, TN

Set No. _____

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INVITATION TO BIDDERS

Project: **Werner Avenue Drainage Infrastructure**
 City of Alcoa Development Services Department
 Project No. 25-013

Engineer: **Jacob Graves, P.E.**
 Gresham Smith
 2095 Lakeside Centre Way
 Knoxville, TN 37922

Owner: **City of Alcoa**
 725 Universal Street
 Alcoa, TN 37701

SEPARATE sealed BIDS for the **Werner Avenue Drainage Infrastructure** project will be received by the Development Services Department of the City of Alcoa, Tennessee at the City of Alcoa Service Center, 725 Universal Street, Alcoa, Tennessee until **2:00 p.m.**, Local Time, on the **Thursday the 4th day of December, 2025** and then at said place publicly opened and read aloud.

Bids may be submitted via U.S. Mail / UPS / FedEx, etc., hand delivered, or e-mailed to coasealedbid@cityofalcoa-tn.gov. Regardless of the mode, the Bidder shall be responsible for the early delivery of their bid. Mailed or hand-delivered bids should be in a sealed envelope and labeled "Werner Avenue Drainage Infrastructure, RFB 25-105, Bid Enclosed". The subject line of e-mailed bids shall state the same.

The work of this contract generally consists of the following: Installation of stormwater drainage infrastructure in Springbrook Farms Development in Alcoa, TN. Springbrook Farms is a Brownfield site development and the contractor shall follow the Soils Management Plan (SMP) if suspect material is discovered (attached in this document). Drainage will be installed from Pistol Creek up to Faraday Street following the proposed Werner Avenue roadway alignment. Project will include construction of a haul road to a stockpile area for rough grading the proposed alignment.

Project is subject to and will not commence until receipt of necessary easements and SWPPP for performance of construction described in scope of work.

All bid payments will be made by the City of Alcoa.

No bids will be received or accepted after the above specified time for the opening of Bids. Bids submitted after the designated hour will be deemed invalid and returned unopened to the Bidder.

The BIDDING DOCUMENTS may be examined at the following locations:

City of Alcoa - Development Services Department
725 Universal Street
Alcoa, TN 37701

BIDDING DOCUMENTS may be obtained from the Development Services Department of the City of Alcoa after completing the Bid Document Request Form available on the City of Alcoa bids website at <https://www.cityofalcoa-tn.gov/Bids.aspx> for the subject project. Completed Bid Document Request Forms shall be emailed to dgency@cityofalcoa-tn.gov. You will then receive a response email containing a link to download PDF files of the project Plans, Proposal Contract, and Bid Package.

BIDS shall be accompanied by cashier's or bank checks or BID Guarantee BONDS in the amount not less than five percent (5%) of the BID made payable to the City of Alcoa, Tennessee, OWNER, and subject to the conditions provided in the INSTRUCTION FOR BIDDERS. Bidders shall submit with their bid a Drug-Free Workplace Affidavit of Prime Bidder as required by TCA §50-9-113. A Voluntary Title VI Disclosure should also be included with the bid to assist with the City of Alcoa's compliance with Title VI of the Civil Rights Act of 1964.

The successful bidder will be required to furnish acceptable Performance and Payment Bonds in the amount of one hundred percent (100%) of the contract price, each bond to each owner.

The project herein described is to be completed within one hundred and two (102) calendar days from the date of the Notice to Proceed. Liquidated damages for delay of completion of contract will be in accordance with the TDOT standard specification section 108.09.

Bidders may withdraw their bid within twenty-four (24) hours of the bid opening providing certification of an error in their submittal is forwarded to the Owner. Thereafter, no Bidder may withdraw his bid within sixty (60) days after the actual bid date of the opening thereof.

All bidders must be TDOT prequalified contractors and licensed contractors to perform the type construction herein described by Tennessee Code Annotated, Title 62, Chapter 6, Amended by Chapter 9 and Chapter 406 of the Public Works Act of 1977. The project is funded by local funds.

The CONTRACTOR shall comply with all State, Federal, and Local laws and/or regulations.

The City of Alcoa reserves the right to waive any irregularities or reject any or all bids. The City of Alcoa shall not discriminate against any contractor regardless of race, religion, creed, color, sex, national origin, age, or physical handicap.

The proposed project has been developed in accordance with Title VI of the Civil Rights Act of 1964 which provides that no person shall, on the grounds of race, sex, age, national origin, or disabling condition, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

Bruce Applegate, City Manager
City of Alcoa
223 Associates Boulevard
Alcoa, TN 37701

INSTRUCTIONS FOR BIDDERS

1. DEFINED TERMS

Terms used in these instructions for Bidders which are defined in the Standard General Conditions of the Contract, NSPE-ACEC Document 1910-8, CSI 56465 have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom the Owner(s) (on the basis of Owners' evaluations as hereinafter provided) makes an award.

2. COPIES OF BIDDING DOCUMENTS

- 2.1** Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation may be obtained from the Engineer. The deposit will be refunded to Bidders who submit a bona fide Bid and return the Bidding Documents within ten (10) days after opening of Bids.
- 2.2** Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner(s) nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3** Owner(s) and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS

To demonstrate qualifications to perform the Work, each Bidder must be prequalified with the Tennessee Department of Transportation (TDOT).

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.1** Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may in any manner affect cost, progress or performance of the Work, (c) become familiar with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents.
- 4.2** On request, Owner(s) will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid.
- 4.3** The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Supplementary Conditions, General Requirements, or Drawings.
- 4.4** The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 4 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

5. INTERPRETATIONS

All questions about the meaning or intent of the Contract Documents shall be submitted to City of Alcoa in writing or verbally during the pre-bid meeting. Replies will be issued by Addenda email to all parties recorded by City of Alcoa as having received the Bidding Documents. Questions received less than two (2) days prior to the date for opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. BID SECURITY

6.1 Bid Securities shall be made payable to Owner(s), in an amount of five percent (5%) of the Bidder's maximum Bid price and in the form of certified or bank checks or Bid Bonds (on form attached, if a form is prescribed) issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions.

6.2 The Bid Securities of the Successful Bidder will be retained until such Bidder has executed the Agreements and furnished the required Contract Securities, whereupon it will be returned; if the successful Bidder fails to execute and deliver the Agreements and furnish the required Contract Securities within 15 days of the Notice of Awards, Owner(s) may annul the Notice of Awards and the Bid Securities of that Bidder will be forfeited. The Bid Securities of any Bidder whom Owner(s) believe to have a reasonable chance of receiving the award may be retained by Owner(s) until the earlier of the seventh day after the "effective date of the Agreements" (which term is defined in the General Conditions) by Owner(s) to Contractor and the required Contract Securities are furnished or the sixty-first (61st) day after the Bid opening.

7. CONTRACT TIME

The number of days within which, or the date by which, the Work is to be completed (the Contract Time) is set forth in the Bid Form and will be included in the Agreements.

8. LIQUIDATED DAMAGES

Provisions for liquidated damages shall follow the TDOT standard specifications section 108.09.

9. SUBSTITUTE MATERIAL AND EQUIPMENT

The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. When it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" items of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the "effective date of the Agreements". The procedure for submittal of any such application by Contractor and consideration by Engineer is set forth in Article 14 of the General Conditions which may be supplemented in the General Requirements.

10. SUBCONTRACTORS, ETC.

10.1 If the Supplementary Conditions require the identity of certain Subcontractors and other persons or organizations to be submitted to Owner(s) in advance of the Notice of Award, the apparent Successful Bidder, and any other Bidder so requested, will within seven (7) days after the day of the Bid opening submit to Owner(s) a list of all Subcontractors and other persons or organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the Work as to which such identification is so required. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualifications for each such Subcontractor, person or organization if requested by the Owner(s). If Owner(s) or Engineer after due investigation has reasonable objection to any proposed Subcontractor, other person or organization, either may before giving the Notice of Award request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person or organization so listed and to whom Owner(s) or Engineer

does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner(s) and Engineer.

- 10.2** In contracts where the Contract Price is on the basis of Cost-of-the-work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Award, shall identify in writing to Owner(s) those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award, may only subcontract other portions of the Work with Owners' consent.
- 10.3** No Contractor shall be required to employ any Subcontractor, other person or organization against whom he has reasonable objection.

11. BID FORM

- 11.1** The Bid Form is attached hereto; additional copies may be obtained from Engineer.
- 11.2** The Bid Forms must be completed in ink or by typewriter. The Bid price of each unit item on the form must be stated in numerals; unit price of each item shall govern over any conflict with sum of items.
- 11.3** Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 11.4** Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 11.5** All names must be typed or printed below the signature.
- 11.6** The Bid shall contain an acknowledgment of receipt of all Addenda (the number of which shall be filled in on the Bid Form).
- 11.7** The address to which communications regarding the Bid are to be directed must be shown.

12. SUBMISSION OF BIDS

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be included in an opaque sealed envelope, marked:

Project title,
Bidder's name and address,
Bidder's Tennessee Contractors License Number.
Bidders License Expiration Date,
Bidder's License Classification; and
Contract for which Bid is submitted.

Bids must be accompanied by the Bid Security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.

13. MODIFICATION AND WITHDRAWAL OF BIDS

- 13.1** Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 13.2** If, within twenty-four (24) hours after Bids are opened, any Bidder files a duly signed written notice with Owner(s) and promptly thereafter demonstrates to the reasonable satisfaction of Owner(s) that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his Bid and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work.

14. OPENING OF BIDS

Bids will be opened publicly and will be read aloud. An abstract of the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids.

15. BIDS TO REMAIN OPEN

All Bids shall remain open for sixty (60) days after the day of the Bid opening, but Owner(s) may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

16. AWARD OF CONTRACT

16.1 Owner(s) reserve the right to reject any and all Bids, to waive any and all irregularities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive or conditional Bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

16.2 In evaluating Bids, Owner(s) shall consider the qualification of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and unit prices if requested in the Bid forms. It is Owners' intent to accept alternates (if any are accepted) in order in which they are listed in the Bid form, but Owner(s) may accept them in any order or combination.

16.3 Owner(s) may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by Owner(s).

16.4 Owner(s) may conduct such investigations as he deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owners' satisfaction within the prescribed time.

16.5 Owner(s) reserve the right to reject the Bid of any Bidder who does not pass any such evaluation to Owners' satisfaction.

16.6 If the contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner(s) indicates to the Owner(s) that the award will be in the best interests of the Project.

16.7 If the contract is to be awarded, Owner(s) will give the Successful Bidder a Notice of Award within sixty (60) days after the day of the Bid opening.

17. PERFORMANCE AND OTHER BONDS

Paragraph 5.1 of the General Conditions and Supplementary Conditions set forth Owners' requirements as to Performance and other Bonds. When the Successful Bidder delivers the executed Agreement to Owner(s) it shall be accompanied by the required Contract Security.

18. SIGNING OF AGREEMENT

When Owner(s) gives Notice of Awards to the Successful Bidder, it will be accompanied by at least three unsigned counterparts of the Agreements and all other Contract Documents. Within

fifteen (15) days thereafter, Contractor shall sign and deliver at least three counterparts (or number required by Engineer) of the Agreements to Owner(s) with all other Contract Documents attached. Within ten (10) days thereafter Owner(s) will deliver all fully signed counterparts to Engineer. Engineer will identify those portions of the Contract Documents not fully signed by Owner(s) and Contractor and such identification shall be binding on all parties.

19. SPECIAL LEGAL REQUIREMENTS

Project is subject to and will not commence until receipt of necessary easements for performance of construction described in scope of work.

20. FOUR-HOUR BIDDING PRACTICES CODE FOR RECEIVING SUBBIDS ON MUNICIPAL UTILITIES CONSTRUCTION WORK IN TENNESSEE

The Municipal-Utilities Contractors of Tennessee have adopted bidding practice codes in an endeavor to create an atmosphere of confidence and mutual respect among municipal-utilities contractors, subcontractors, equipment and material suppliers, and will encourage fair and equitable dealings within the industry in keeping with the principals of competitive free enterprise. Compliance with these procedures of giving and receiving prices on subcontracts, materials and equipment in sufficient time to allow the contractor to analyze and evaluate subbids, material and equipment prices, and his own bid, prior to bid filing is requested and encouraged. Copies of the Bidding Practices Code may be secured through the Tennessee Contractor's Association.

21. FORTY-EIGHT (48) HOUR NON-CONTACT PERIOD

Questions or other inquiries regarding these plans and specifications prior to bidding shall be submitted a minimum of 48 hours prior to bid opening. Any questions submitted after this time will not be accepted or responded to, at the discretion of the Engineer or Owner(s).

22. IRAN DIVESTMENT ACT

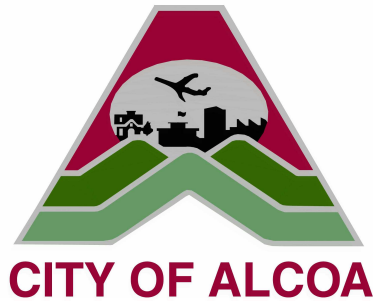
By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to Tennessee Code annotated §12-12-106.

B I D F O R M

Project:

Werner Avenue Drainage Infrastructure

Project No. 25-013



**Project Manager: Dakota Gentry, P.E.
Civil Engineer II
Development Services Department
City of Alcoa
725 Universal St
Alcoa, TN 37701**

This Bid is submitted to:

**Dakota Gentry, P.E.
Civil Engineer II
Development Services Department
City of Alcoa
725 Universal St
Alcoa, TN 37701**

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER(S) in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Document for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. BIDDER accepts all of the terms and conditions of the Instructions for Bidders, including without limitation those dealing with the disposition of Bid Securities. This Bid will remain open for sixty (60) days after the day of BID opening. BIDDER will sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within fifteen (15) days after the date of OWNER'S Notice of Award.

3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreements, that:
 - (a) Bidder has received, read, and examined the following numbered addenda:
_____, _____, _____, _____,
(Receipt of all of which is hereby acknowledged) and also copies of the Invitation to Bid and the Instructions for Bidders;

 - (b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary; the BIDDER has carefully examined the Plans, the Technical Specifications, the General and Special Conditions, Instructions for Bidders, the Form of Contract, and the form of Contract Bond, and thoroughly understands their stipulations, requirements and provisions.

BIDDER has determined the quality and quantity of materials required; has investigated the location and determined the sources of supply of materials required; has investigated labor conditions; and has arranged for the continuous prosecution of the work herein described.

- (c) BIDDER understands that the quantities of work shown herein are approximate only and are subject to increase and decrease and agrees that all quantities of work, whether increased or decreased are to be performed at the unit prices stated in the following Estimate of Quantities and Schedule of Prices for the Work described. The Bidder agrees to perform all "Extra Work" which may be required in connection with the construction and completion of the work as required.
 - (d) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain any advantage over any other Bidder or over OWNER(S).
- 4. BIDDER understands that a price for each item in the Bid Schedule must be filled in as stated in Instructions for Bidders. Failure to indicate price for alternates, if any, may be grounds for considering the Bid irregular.
 - 5. BIDDER will complete the Work as described in the specifications for the price(s) shown on the following Bid Schedules:

BID SCHEDULE - WERNER AVENUE DRAINAGE INFRASTRUCTURE								
ITEM NO.	DESCRIPTION	UNIT	CITY OF ALCOA BID QTY	NON- PARTICIPATING BID QTY	UNIT PRICE	CITY OF ALCOA BID COST	NON- PARTICIPATING BID COST	TOTAL COST
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	0.9	0.1				
201-01	CLEARING AND GRUBBING	LS	1					
202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1					
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	9850					
203-01.29	ROCK EXCAVATION	C.Y.	2151	669				
203-10.15	WASTE MATERIAL	C.Y.	100	100				
203-50	CONSTRUCTION OF HAUL ROAD	LS	1					
209-05	SEDIMENT REMOVAL	C.Y.	112					
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	1570					
209-08.07	ROCK CHECK DAM	EACH	2					
209-08.08	ENHANCED ROCK CHECK DAM	EACH	4					
209-09.04	SEDIMENT FILTER BAG (15' X 10')	EACH	2					
209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	11					
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	12					
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	20					
607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	12					
607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	22					
607-08.02	42" CONCRETE PIPE CULVERT (CLASS III)	L.F.		149				
607-08.03	42" CONCRETE PIPE CULVERT (CLASS IV)	L.F.	260	198				
607-09.02	48" CONCRETE PIPE CULVERT (CLASS III)	L.F.	612					
607-10.02	54" CONCRETE PIPE CULVERT (CLASS III)	L.F.	165					
611-01.20	ADJUSTMENT OF EXISTING MANHOLE	EACH	2					
611-07.01	CLASS "A" CONCRETE (PIPE ENDWALLS)	C.Y.	13					
611-07.02	STEEL BAR REINFORCING (PIPE ENDWALLS)	LB	620					
611-60.10	CATCH BASIN, 60IN ROUND, >4FT-8FT DEPTH	EACH	1					
611-60.22	CATCH BASIN, 72IN ROUND, >12FT-16FT DEPTH	EACH	1					
611-60.32	CATCH BASIN, 84IN ROUND, >12FT-16FT DEPTH	EACH	2					
611-60.42	CATCH BASIN, 96IN ROUND, >12FT-16FT DEPTH	EACH	1					
611-60.43	CATCH BASIN, 96IN ROUND, >16FT-20FT DEPTH	EACH	1					
611-62.32	MANHOLE STRUCTURE, 84IN ROUND, >12FT-16FT DEPTH	EACH	2					
611-62.42	MANHOLE STRUCTURE, 96IN ROUND, >12FT-16FT DEPTH	EACH		2				
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	700					
709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	200					
709-05.08	MACHINED RIP-RAP (CLASS B)	TON	307					
795-14.05	CONCRETE ENCASEMENT	L.F.	10					
717-01	MOBILIZATION	LS	0.9	0.1				

BID SCHEDULE - WERNER AVENUE DRAINAGE INFRASTRUCTURE								
ITEM NO.	DESCRIPTION	UNIT	CITY OF ALCOA BID QTY	NON- PARTICIPATING BID QTY	UNIT PRICE	CITY OF ALCOA BID COST	NON- PARTICIPATING BID COST	TOTAL COST
740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	1286					
740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	3110					
801-01	SEEDING (WITH MULCH)	UNIT	115					
801-02	SEEDING (WITHOUT MULCH)	UNIT	28					
801-03	WATER (SEEDING & SODDING)	M.G.	15					
805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	3112					
TOTALS								

CITY OF ALCOA TOTAL BID = _____

GRAND TOTAL AMOUNT IN WORDS _____

NON-PARTICIPATING TOTAL BID = _____

GRAND TOTAL AMOUNT IN WORDS _____

GRAND TOTAL BID = _____

GRAND TOTAL AMOUNT IN WORDS _____

6. BIDDER agrees that:
- (a) The work will be substantially completed on or before the dates, or within the number of calendar days indicated in the Agreement and the Notice to Proceed; and
 - (b) the work will be completed within one hundred and two (102) calendar days after the date when the Contract Time commences to run.

BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time.

7. The undersigned BIDDER submits herewith bid guaranties in an amount of not less than five percent (5%) of the total amount of the proposal offered, and agrees and consents that the bid guaranty shall be forfeited to the OWNER(S) as liquidated damages if the required Contract Bond is not executed within fifteen (15) days from the date of the Notice of Award and Work has not been started as required. There shall be one bid bond submitted, for five percent of the grand total. The following documents are attached to and made a condition of this BID:

- (a) Required Bid Security in the form of:
 - _____ Certified Checks or Bank Checks
 - _____ Bid Bonds

8. Communications concerning this BID shall be addressed to:

Dakota Gentry, P.E.
Civil Engineer II
Development Services Department
City of Alcoa
725 Universal St
Alcoa, TN 37701

9. The terms used in this Bid which are defined in the General Conditions of the Contract Documents have the meanings assigned to them in the General Conditions.
10. **By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and**

belief that each bidder is not on the list created pursuant to Tennessee Code Annotated § 12-12-106.

SUBMITTED on _____, 20_____.

If BIDDER is:

An Individual

By: _____ (Seal)
(Signature Line)

(Individual's Printed Name)

dba: _____

Address: _____

Phone No.: _____

A Partnership

By: _____ (Seal)
(Firm Name)

(General Partner Signature)

(Partner's Printed Name)

Address: _____

Phone No.: _____

A Corporation

By: _____
(Corporation Name)

(State of Incorporation)

By: _____
(Name of Person Authorized to Sign)

(Authorized Person's Printed Name)

_____ (Corporate Seal)
(Title)

Attest: _____
(Secretary)

Address: _____

Phone No.: _____

A Joint Venture

By: _____
(Signature)

(Printed Name)

(Address)

Phone No.: _____

By: _____
(Signature)

(Printed Name)

(Address)

Phone No.: _____

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

Complete and attach to outside of sealed bid:

BID

Project: **Werner Avenue Drainage Infrastructure
City of Alcoa Project No. 25-013**

Submitted To: CITY OF ALCOA, TENNESSEE

Bid Opening: Date - December 4th, 2025 Time - 2:00 P.M. EST/EDT
Location - 725 Universal Street, Alcoa, Tennessee, 37701

Owner: **City of Alcoa
223 Associates Blvd, Alcoa, Tennessee 37701**

Project Manager: **Dakota Gentry, P.E. - City of Alcoa**

General Contractor: _____
Address: _____
Telephone / FAX: _____

License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____

Authorized Representative: _____

Subcontractors (insert craft):

_____: _____
License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____

_____: _____
License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____

_____: _____
License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____

_____: _____
License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____

_____: _____
License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____

_____: _____
License No. _____ Expiration Date: _____
Limitations: _____ Classification: _____



**CITY OF ALCOA
BID BOND**

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,
_____ as CONTRACTOR, and
_____ as Surety, are hereby held and firmly
bound unto the City of Alcoa, Tennessee as OWNER in the penal sum of
_____ for payment of
which, well and truly to be made, where hereby jointly and severally bind ourselves, successors
and assigns.

Signed, this _____ day of _____, 20_____.

WHEREAS, the principal has submitted to the City of Alcoa, Tennessee a certain BID,
attached hereto and hereby made a part hereof to enter into a contract in writing, for construction
of

**Werner Avenue Drainage Infrastructure
City of Alcoa Project No. 25-013**

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the CONTRACTOR shall execute and deliver a contract in the Form of Contract, attached hereto, (properly completed in accordance with said BID) and shall furnish a BOND for the faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID,

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

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

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

CONTRACTOR

By: _____

Witness: _____

Title: _____

SURETY

By: _____

Witness: _____

Title: _____

Note: Bond may be declared invalid if not accompanied by Power of Attorney.

**CITY OF ALCOA
DEVELOPMENT
SERVICES DEPT.**

The mission of the City of Alcoa's Public Works and Engineering Department is to provide quality services that are responsive to customer needs. Customer satisfaction is achieved through economic responsibility by utilizing our human, financial and natural resources to their greatest potential. Our vision of a quality community will be built on foundations of the past while continuing to improve our services.

725 UNIVERSAL STREET, ALCOA, TENNESSEE 37701

(865) 380-4800

FAX: (865) 380-4803

DRUG-FREE WORKPLACE AFFIDAVIT OF PRIME BIDDER

STATE OF _____

COUNTY OF _____

Comes the affiant after having first been duly sworn and testifies as follows:

1. My name is _____ . I hold the principal office of

_____ for _____
(Name of Principal Office) (Name of Bidding Entity)

2. _____ has submitted a bid to the City of Alcoa for the
(Name of Bidding Entity)

construction of **Werner Avenue Drainage Infrastructure**, City of Alcoa Development Services Department Project No. 25-013.

3. _____ employs no less than five (5) employees.
(Name of Bidding Entity)

4. In accordance with Tenn. Code Ann. §50-9-113, this is to certify that

_____ has in effect, at the time of submission of its bid to perform
(Name of Bidding Entity)

the construction of the City of Alcoa project identified above, a drug-free workplace program that complies with Title 50, Chapter 9 of the Tennessee Code.

5. This affidavit is made on personal knowledge.

Further the affiant saith not this __ day of _____, 20__.

Title: _____

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

My Commission Expires: _____

NOTE: This affidavit to be attached to the Bid Form at the time of submission.



CITY OF ALCOA VOLUNTARY TITLE VI DISCLOSURE

NOTE TO BIDDER: To assist with the City of Alcoa's compliance with Title VI of the Civil Rights Act of 1964, you are requested to complete the following information and attach the same to submitted bid. This disclosure is voluntary. Completion of the disclosure or failure to do so shall not effect the outcome of the bid for these goods / services,

Name/Address of Firm:

_____ Telephone:() - _____
_____ Fax: () - _____

Are you a tax-exempt corporation? Yes _____ No _____

Exemption Number: _____

Is your company a small business as defined by the U.S. Small Business Administration?
Yes _____ No _____

Are you incorporated? Yes _____ No _____

If yes, are you publicly traded? Yes _____ No _____

Owner's Gender: Male _____ Female _____

Identify company classification:

American Indian or Alaska Native	_____	Hispanic or Latino	_____
Asian	_____	Native Hawaiian or Other Pacific Islander	_____
Black or African American	_____	Caucasian	_____

Is your business classified as a Disadvantaged Business? Yes _____ No _____ Other _____

Names of Officers:

President: _____

Vice-president: _____

Contact person for this bid: _____ Telephone: _____

**CITY OF ALCOA
DEVELOPMENT
SERVICES DEPT.**

The mission of the City of Alcoa's Development Services Department is to provide quality services that are responsive to customer needs. Customer satisfaction is achieved through economic responsibility by utilizing our human, financial and natural resources to their greatest potential. Our vision of a quality community will be built on foundations of the past while continuing to improve our services.

725 UNIVERSAL STREET, ALCOA, TENNESSEE 37701

(865) 380-4800

FAX: (865) 380-4803

**FAIR AND ACCURATE CREDIT TRANSACTIONS ACT OF 2003
(FACTA) AFFIDAVIT OF PRIME BIDDER**

STATE OF _____

COUNTY OF _____

Comes the affiant after having first been duly sworn and testifies as follows:

1. My name is _____ . I hold the principal office of

_____ for _____
(Name of Principal Office) (Name of Bidding Entity)

2. _____ has submitted a bid to the City of Alcoa for the
(Name of Bidding Entity)
construction of **Werner Avenue Drainage Infrastructure**, City of Alcoa Public Works & Engineering Department Project No. **25-013** .

3. In accordance with 16 CFR Part 682 regarding the Fair and Accurate Credit Transactions Act of 2003 (FACTA), this is to certify that _____
(Name of Bidding Entity)

either (1) has in effect, at the time of submission of its bid to perform the construction of the City of Alcoa project identified above, a FACTA / "Red Flag Training" program for all employees subject to FACTA, OR (2) affirms that it will implement a program that complies with FACTA before commencement of this project if so awarded a contract for the same.

5. This affidavit is made on personal knowledge.

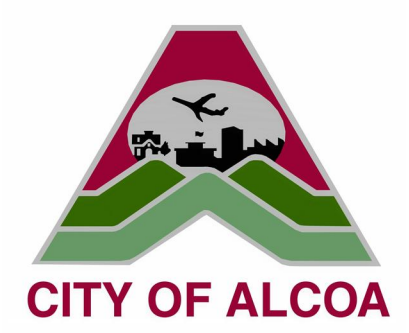
Further the affiant saith not this __ day of _____, 20__ .

Title: _____

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

My Commission Expires: _____

NOTE: This affidavit to be attached to the Bid Form at the time of submission.



**CITY OF ALCOA
AGREEMENT**

AGREEMENT

THIS AGREEMENT, made this _____ day _____, 20___, by and between the CITY OF ALCOA, TENNESSEE, hereinafter called "OWNER" and _____ doing business as (an individual), (a partnership), or (a joint venture), hereinafter called "CONTRACTOR".

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

Article 1. WORK. The Contractor will perform all work as shown in the Contract Documents for the Completion of the Project generally described as follows:

**Werner Avenue Drainage Infrastructure
Project No. 25-013
Alcoa, Tennessee
Development Services Department**

Article 2. ENGINEER: This project has been designed by:

Gresham Smith

who will act as the ENGINEER in connection with completion of the project in accordance with the Contract Documents.

Article 3. CONTRACT TIME. The work shall be completed within one hundred and two (102) calendars days after the date which the CONTRACTOR is to start the work as provided in the Contract Documents.

LIQUIDATED DAMAGES: If the Contractor shall fail to complete the Work within the time stipulated in this Agreement, including any extensions of time for excusable delays as provided for in the Supplemental General Conditions, the Contractor shall pay to the OWNER liquidated damages in the amount of lost revenue, fees, fines, expenses incurred, etc. for each day of delay, until the Work is substantially completed per the TDOT Standard Specifications section 108.09.

Article 4. CONTRACT PRICE. The OWNER will pay the CONTRACTOR for performance of Work and Completion of the Project in accordance with the Contract Documents, subject to adjustment modifications as provided therein, the sum of \$ _____ as shown in the Bid Schedule.

Article 5. PAYMENT PROCEDURES. The OWNER will make progress payments on account of the Contract Price as provided in the General Conditions as follows:

- 5.1 Progress and final payments will be based on the CONTRACTOR'S Application for Payment as approved by the Engineer.
- 5.2 On or about the 25th day of each month during construction:
 - 100% of the Work completed, and
 - 100% of material and equipment not incorporated in the Work, but delivered and suitably stored, less in each case the aggregate of payments previously made.
- 5.3 Upon Substantial Completion, a sum sufficient to increase the total payments to the CONTRACTOR to 100% of the Contract Price, less retainages, as the ENGINEER shall determine for all incomplete Work and unsettled claims.
- 5.4 Upon final completion of the Work and Settlement of all claims, the remainder of the Contract Price.

Article 6. CONTRACT DOCUMENTS. The Contract Documents which comprise the contract between the OWNER and the CONTRACTOR are attached hereto and made a part hereof and consist of the following:

- 6.1 This AGREEMENT (Pages 1 to 3, inclusive),
- 6.2 CONTRACTOR'S **Bid** and **Bid Bonds** consisting of 12 pages.
- 6.3 Specifications consisting of:
 - Instructions for Bidders (Pages 1 to 5, inclusive)
 - General Conditions (Pages 1 to 74, inclusive)
 - Supplementary Conditions (Pages 1 to 5, inclusive)
 - Technical Specifications (Pages 1 to 38, inclusive)
- 6.4 Project **Plans** by reference.
- 6.5 **Addenda** numbers _____ to _____, inclusive, and
- 6.6 Any Modifications, including Change Orders, duly delivered after execution of this Agreement.

Article 7. MISCELLANEOUS.

- 7.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- 7.2 Neither the OWNER nor the CONTRACTOR shall, without the prior written consent of the other, assign or sublet in whole or part his interest under any of the Contract Documents and, specifically, the CONTRACTOR shall not assign any monies due or to become due without the prior written consent of the OWNER.
- 7.3 The OWNER and the CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto in respect of all covenants, agreements and obligations contained in the Contract Documents.
- 7.4 The Contract Documents constitute the entire agreements between the OWNER and the CONTRACTOR and may only be altered, amended or repealed by a duly executed written instrument.

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

OWNER _____
By: _____
Title: _____

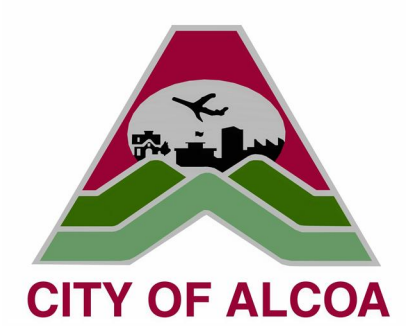
CONTRACTOR _____
By: _____
Title: _____

(CORPORATE SEAL)

(CORPORATE SEAL)

Attest:
By: _____
Title: _____

Attest:
By: _____
Title: _____



**CITY OF ALCOA
PERFORMANCE BOND**

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Contractor, and
(Corporation, Partnership, Individual or Joint Venture)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto **THE CITY OF ALCOA, 223 Associates Blvd, Alcoa, TN 37701**, hereinafter called OWNER, in the penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that,

WHEREAS, the CONTRACTOR has entered into a certain contract with the OWNER, dated the _____ day of _____, 20__, a copy of which is hereto attached and made a part hereof for the construction of:

**Werner Avenue Drainage Infrastructure
City of Alcoa - Development Services Department
Project No. 25-013**

NOW, THEREFORE, if the CONTRACTOR shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the

OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in four counterparts, each one of which shall be deemed an original, this the ____ day of _____, 20__.

Contractor
By: _____
Title: _____

Address

Surety
By: _____
Attorney-in-Fact

Address

ATTEST:

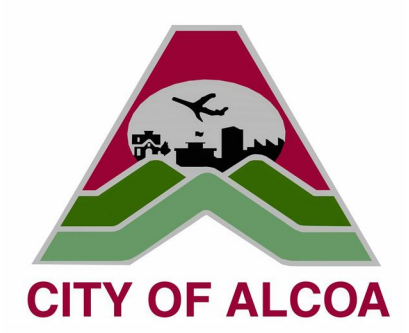
(Contractor) Secretary

(SEAL)

Witness to Surety

Address

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND. Bond is not valid unless accompanied by Power of Attorney.



**CITY OF ALCOA
PAYMENT BOND**

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Contractor, and
(Corporation, Partnership, Individual or Joint Venture)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto **THE CITY OF ALCOA, 223 Associates Blvd, Alcoa, TN 37701**, hereinafter called OWNER, in the penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that,

WHEREAS, the CONTRACTOR has entered into a certain contract with the OWNER, dated the _____ day of _____, 20__, a copy of which is hereto attached and made a part hereof for the construction of:

**Werner Avenue Drainage Infrastructure
City of Alcoa - Development Services Department
Project No. 25-013**

NOW, THEREFORE, if the CONTRACTOR shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due to materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by

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

PROVIDED, FURTHER, that said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in four counterparts, each one of which shall be deemed an original, this the ____ day of _____, 20__.

Contractor
By: _____
Title: _____

Address

Surety
By: _____
Attorney-in-Fact

Address

ATTEST:

(Contractor) Secretary

(SEAL)

Witness to Surety

Address

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND. Bond is not valid unless accompanied by Power of Attorney.

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

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

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

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.1 *Defined Terms*

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

- Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.1.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
- 11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 - 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 - 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 - 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 - 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 - 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 - 17. *Cost of the Work*—See Paragraph 13.1 for definition.
 - 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 - 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 - 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 - 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or

communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor’s plan to accomplish the Work within the Contract Times.

32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part

thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
 - a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.3, 5.4, and 5.6, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
 - d. Technical Data does not include general publications of the owner which are not specific to the work, including but not limited to GIS.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and

50. commissioning, all as required by the Contract Documents.

51. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.2 Terminology

- A. The words and terms discussed in Paragraphs 1.2.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day*: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.3 or Paragraph 15.4).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.1 Delivery of Performance and Payment Bonds; Evidence of Insurance

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.2 Copies of Documents

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

2.3 *Before Starting Construction*

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

2.4 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.3.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.5 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.3.A. No progress payment will be made to Contractor until schedules meeting the following standards and are acceptable to Engineer and are submitted to the Engineer.
1. The Progress Schedule will not be acceptable to Engineer if it does not provide an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will not be acceptable to Engineer if it does not provide a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will not be acceptable to Engineer as to form and substance if it does not provide a reasonable allocation of the Contract Price to the component parts of the Work.
 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.6 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.1 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.2 *Reference Standards*

A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.3 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.1.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.1.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof or would have had actual knowledge if Contractor had complied with paragraphs 3.3(A)(1)&(2) above.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take

precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

- a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.4 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.5 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.5 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.1 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier, unless agreed to in writing by the Owner and Contractor.

4.2 *Starting the Work*

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

4.3 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.4 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.5 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.5) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.4, or as Owner and Contractor may otherwise agree in writing.

4.5 *Delays in Contractor's Progress*

- A. If Owner or Engineer, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor may be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor may be entitled to an equitable adjustment in Contract Times. Such an adjustment, if made, will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. Prolonged abnormal weather conditions;
 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 4. Acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.7.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the

effect of the delay, disruption, or interference on the critical path to completion of the Work.

- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.5.D and 4.5.E.
- G. Paragraph 8.3 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.1 Availability of Lands

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

5.2 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise;

(b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

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

5.3 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
 - 2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
 - 3. Technical Data contained in such reports and drawings.
- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.5, and not in the drawings referred to in Paragraph 5.3.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.
- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.1.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data supplied by the Owner and Engineer, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site, or documents in the possession of or available to Owner because of Owner's status as a governmental entity which would normally not be in the possession of or provided by private property owners; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.4 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.3 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.4.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis and will not prevent the safe resumption of work, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor may be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Such condition must fall within any one or more of the categories described in Paragraph 5.4.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.3; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.5.D and 4.5.E.
 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.4.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the

5. subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.5 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.6 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.3 and 5.4 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.5 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and regardless of the depiction of Underground Facilities on the Drawings, Contractor shall have full responsibility for:
 1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;
 3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
 1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such

Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis and will not prevent the safe resumption of work, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
 - 1. Contractor may be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.3;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.5.D and 4.5.E; and
 - c. Contractor gave the notice required in Paragraph 5.5.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 - 3. Any Change Proposal regarding Contractor's entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, must be submitted by Contractor no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question or the right to request any such adjustments is waived.
 - 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.5.F.

5.6 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify

1. those reports relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
 2. drawings relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy but not exhaustiveness of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.1.A.46.b. Reliance on Technical Data does not relieve Contractor of any other obligations under this Contract or responsibility to comply with applicable standards. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by

- Paragraph 5.6.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- F. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.5.D, 4.5.E, 11.7, and 11.8.
- G. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.6.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 5.3, 5.4, and 5.5 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.1 Performance, Payment, and Other Bonds

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.8, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary

Conditions or other provisions of the Contract.

- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in Tennessee, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.2 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in Tennessee to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of

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- applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
 - F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
 - G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
 - H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
 - I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
 - J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
 - K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required

to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract must contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.3 Contractor's Insurance

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.3 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least one year after the later of the following: 1) until the Work is complete (as set forth in Paragraph 15.6.D), 2) the last date expressly required elsewhere in this Contract if any, and 3) at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements; and
 - 6. Include an endorsement for tail coverage or a discontinued completed operations policy.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds

3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);
4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.4 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined.
- C. *Property Insurance for Substantially Complete Facilities*: After Substantial Completion, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.6.D. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.4, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.4, it may do so at Contractor's expense.

6.5 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.4 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
- B. The waivers in this Paragraph 6.5 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to

Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.

- C. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.6 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.4 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.4 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.1 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.2 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform

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the Work in accordance with the Contract Documents.

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

7.3 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.
- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.

7.4 *Services, Materials, and Equipment*

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

7.5 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be

considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
 - b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.6.

7.6 Substitutes

- A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor

2. The requirements for review by Engineer will be as set forth in Paragraph 7.6.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the

- reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
 - F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.6.D, by timely submittal of a Change Proposal.

7.7 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of reasonable objection. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor may be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in

accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

7.8 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.9 *Permits*

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

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by

Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations, however, in the event that either Owner or Engineer determines Contractor's Work is being performed in violation of applicable laws or regulations, either Owner or Engineer has the authority but not a duty to stop Work. Contractor may resume Work only in compliance with laws and regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.3.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

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

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.6.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 Hazard Communication Programs

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly

known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

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

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.
 3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. *Shop Drawings*

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

2. *Samples*

- a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Engineer's Review of Shop Drawings and Samples*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.

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8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
 - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.3, 2.4, and 2.5.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.

- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.8. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Shop Drawing or Sample submittal;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.8;
 - 8. Any inspection, test, or approval by others; or
 - 9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly

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employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.
- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.1 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.5.C.3.

8.2 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for

- coordination of the activities among the various contractors;
2. An itemization of the specific matters to be covered by such authority and responsibility; and
 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.3 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor may be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.5.D and 4.5.E.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.3.B.
 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor,

Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER’S RESPONSIBILITIES

9.1 Communications to Contractor

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

9.2 Replacement of Engineer

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

9.3 Pay When Due

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

9.4 Lands and Easements; Reports, Tests, and Drawings

- A. Owner’s duties with respect to providing lands and easements are set forth in Paragraph 5.1.
- B. Owner’s duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.3.
- C. Article 5 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site. Owner’s responsibility to provide documents and information under Article 5 shall be limited to what has been agreed to by the Parties.

9.5 Insurance

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

9.6 Change Orders

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

9.7 Inspections, Tests, and Approvals

A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.2.B.

9.8 Limitations on Owner’s Responsibilities

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible

for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.9 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.6.

9.10 *Safety Programs*

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

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.1 *Owner's Representative*

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

10.2 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.7. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.3 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.7.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such

individual or entity will be as provided in the Supplementary Conditions.

10.4 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14 and to stop Work in compliance with this Agreement or when requested by Owner.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.
- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.5 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.3.

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

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

10.7 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.6.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.7 also apply to the Resident Project Representative, if any.

10.8 *Compliance with Safety Program*

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

ARTICLE 11—CHANGES TO THE CONTRACT

11.1 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.2 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.5, (b) required because of Owner's acceptance of defective Work under Paragraph 14.4 or Owner's correction of defective Work under Paragraph 14.7, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.3.B, resolving the impact of a Work Change Directive; Paragraph 11.9, concerning Change Proposals; Article 12, Claims; Paragraph 13.2.D, final adjustments resulting from allowances; Paragraph 13.3.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

11.3 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph

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11.7 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.4 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.5 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.5 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.
- D. A Change Order does not act as a waiver or release by Owner of any Work or change in costs for which a claim may be made.

11.6 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.5.C.2.

11.7 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an

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- B. adjustment in the Contract Price must comply with the provisions of Paragraph 11.9. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12. An adjustment in the Contract Price will be determined as follows:
1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.3);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.7.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.1) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.7.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee may be based on the following percentages of the various portions of the Cost of the Work as guidance:
 - a. For costs incurred under Paragraphs 13.1.B.1 and 13.1.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.1.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.7.C.2.a and 11.7.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.1.B.1 and 13.1.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.1.B.4, 13.1.B.5, and 13.1.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and the greater of a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work or the actual amount of the contractor's fee for overhead and profit directly related to the decrease in Cost of Work if determinable; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the

sum of the costs in each of the cost categories in Paragraph 13.1.B (specifically, payroll costs, Paragraph 13.1.B.1; incorporated materials and equipment costs, Paragraph 13.1.B.2; Subcontract costs, Paragraph 13.1.B.3; special consultants costs, Paragraph 13.1.B.4; and other costs, Paragraph 13.1.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.7.C.2.a through 11.7.C.2.e, inclusive.

11.8 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.9. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.5.

11.9 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.
- B. *Change Proposal Procedures*
 - 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
 - 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.5.D and 4.5.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal

4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
- C. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion:* Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.6.B.

11.10 Notification to Surety

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

ARTICLE 12—CLAIMS

12.1 Claims

- A. *Claims Process:* The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.7, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.6.B.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly after the start of the event giving rise thereto. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and

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that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

C. *Mediation*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
2. If Owner and Contractor agree to mediation, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

D. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial.

E. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; then the results of the agreement will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.1 Cost of the Work

A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.1 are used for two distinct purposes:

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

B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.1.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance

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of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees may include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.1.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, 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.
 - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.
 - c. *Construction Equipment Rental*
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price

(including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor or a Contractor- related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.

3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price (“changed Work”), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. The cost of utilities, fuel, and sanitary facilities at the Site.

g. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

h. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor’s officers, executives, principals, 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 branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.1.B.1 or specifically covered by Paragraph 13.1.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor’s fee. The cost of purchasing, renting, or furnishing small tools and hand tools.

2. Expenses of Contractor’s principal and branch offices other than Contractor’s office at the Site.

3. Any part of Contractor’s capital expenses, including interest on Contractor’s capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or

indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Expenses incurred in preparing and advancing Claims.
6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.1.B.

D. Contractor's Fee

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.7.C.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.7.C.

E. Documentation and Audit: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.2 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for

any of the foregoing will be valid.

- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.3 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).
- E. *Adjustments in Unit Price*
 - 1. Contractor or Owner may be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
 - 2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
 - 3. Adjusted unit prices will apply to all units of that item billed to Owner on or after the date of the adjustment.

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

14.1 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction shall have access to the Site and the Work at reasonable times for their observation, inspection, and testing.

Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.2 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.5.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

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

14.3 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine that Work is defective, and to

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reject defective Work.

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

14.4 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.5 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Engineer shall advise owner. Owner may then in owner's discretion, require Contractor to uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer has advised, that portion of the Work in

question, and provide all necessary labor, material, and equipment. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

1. If the uncovered Work is not found to be defective, Contractor may be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.6 *Owner May Stop the Work*

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

14.7 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.7, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.7 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.7.

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

15.1 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.3. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
2. 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 must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents

(subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.3, and any other qualifications stated in the recommendation); and

- c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.1.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.7, or has accepted defective Work pursuant to Paragraph 14.4;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under

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the Contract Documents.

D. Payment Becomes Due

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

E. Reductions in Payment by Owner

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.7, or has accepted defective Work pursuant to Paragraph 14.4;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action to the satisfaction of owner. The

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reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

15.2 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.3 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections of the Owner, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner, and setting the date for substantial completion.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Contractor shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities until Owner's occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

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

15.4 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.3.A through 15.3.E for that part of the Work.
 2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.3 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.4 regarding builder's risk or other property insurance.

15.5 *Final Inspection*

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

15.6 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.

2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
 3. In lieu of the releases or waivers of Liens specified in Paragraph 15.6.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.7.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract

with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.7 Waiver of Claims

- A. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.8 Correction Period

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery of such defective condition. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.1.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Section 15.8, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.1 *Owner May Suspend Work*

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

16.2 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.2.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.2.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner terminates Contractor pursuant to this section 16.2, Contractor shall owe to Owner all expenses resulting from Contractor's default.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will

not release Contractor from liability.

- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.1.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.2.B and 16.2.D.

16.3 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, but not including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.4 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (1) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.3.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.1 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and

2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
1. agree with the other party to submit the dispute to another dispute resolution process; or
 2. if no dispute resolution process is to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.1 Giving Notice

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.2 Computation of Times

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

18.3 Cumulative Remedies

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

18.4 Limitation of Damages

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

18.5 No Waiver

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

18.6 Survival of Obligations

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

18.7 Controlling Law

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

18.8 Assignment of Contract

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

18.9 Successors and Assigns

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

18.10 Headings

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

18.11 Attorneys Fees

- A. If any action is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees & costs.

SUPPLEMENTARY CONDITIONS

GENERAL

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC® C-700, © 2018) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect. These Supplementary Conditions are arranged in the same order as the paragraphs in the General Conditions and the paragraphs herein bear comparable numbers to those of the General Conditions but with the prefix "SC".

SC-2.1. B EVIDENCE OF INSURANCE

Insert the following in place:

- 2.1. B** Evidence of Insurance: Before any WORK at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with paragraphs 6.02 through 6.06.

SC-5.3 SUBSURFACE AND PHYSICAL CONDITIONS

Add the following paragraph at the end of Section 5.03 of the General Conditions:

- 5.3. E** Neither OWNER nor ENGINEER makes any warranties or representations about any subsurface nor physical conditions that may be encountered within the scope of the Work. The CONTRACTOR shall satisfy himself of such conditions that may be encountered by performing on-site inspections, core drilling or other methods. The risk of encountering and correcting such subsurface and physical conditions shall be borne solely by the CONTRACTOR. The Contract Price shall include the cost of performing the Work complete in place within the Contract Time and in accordance with the terms and conditions of the Contract Documents."

SC-6.3 CONTRACTOR'S LIABILITY INSURANCE

Changes the Section Title to CONTRACTOR'S LIABILITY AND RISK INSURANCE and add the following new paragraph immediately after paragraph 6.3.C:

- D. The limits of liability for the insurance required by Article 6 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

- | | | |
|----|--|-------------|
| 1. | Workers' Compensation and related coverages of the General Conditions: | |
| | a. State: | Statutory |
| | b. Applicable Federal (e.g., Longshoreman's) | Statutory |
| | c. Employer's Liability | \$2,000,000 |
| | Each Accident | \$1,000,000 |
| | Disease – Policy Limit | \$500,000 |
| | Disease – Each Employee | \$100,000 |

2. Contractor's General Liability which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of the Contractor:

a.	General Aggregate	\$2,000,000
b.	Products - Completed Operations Aggregate	\$2,000,000
c.	Personal and Advertising Injury	\$1,000,000
d.	Each Occurrence	
	(1) (Bodily Injury and Property Damage)	\$1,000,000
e.	Fire Damage (any one fire)	\$1,000,000
f.	Medical Expenses (any one expense)	\$5,000
g.	Property Damage liability insurance will provide Explosion, Collapse, and Underground coverages where applicable.	
h.	Excess or Umbrella Liability	
	(1) General Aggregate	\$2,000,000
	(2) Each Occurrence	\$2,000,000

3. Automobile Liability:

a.	Bodily Injury:	
	(1) Each Person	\$1,000,000
	(2) Each Accident	\$1,000,000
b.	Property Damage:	
	(1) Each Accident	\$1,000,000
c.	Combined Single Limit of	\$1,000,000

4. The Contractual Liability coverage shall provide coverage for not less than the following amounts:

a.	Bodily Injury:	
	(1) Each Accident	\$1,000,000
	(2) Annual Aggregate	\$1,000,000

- b. Property Damage:
 - (1) Each Accident \$1,000,000
 - (2) Annual Aggregate \$1,000,000
- 5. Builder's Risk Insurance – The Contractor shall carry Builder's Risk Insurance, including all-risk coverage, for an amount equal to the greater of the total value of the Contract or the amount provided by Section 6.4.A.
- 6. The Contractor shall furnish the Owner with a Certificate of Insurance naming Owner as an additional insured on all casualty policies.

SC-6.3 OWNER'S LIABILITY INSURANCE (EXCESS LIABILITY-UMBRELLA FORM)

Add the following paragraph at the end of section 6.3 of the General Conditions:

6.03. D The CONTRACTOR shall provide for additional liability coverage for OWNER and ENGINEER as will protect OWNER and ENGINEER against claims which may arise from operations under the Contract Documents. Such insurance coverage shall be provided by endorsement as additional insureds on CONTRACTOR'S General Liability Policy or by a separate "Owner's Protection Policy".

SC-6.4 PROPERTY INSURANCE

Delete paragraph 6.4 of the General Conditions in its entirety and insert the following in its place:

- A. CONTRACTOR shall purchase and maintain property insurance upon the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in these Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. Include the interest of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 - 2. Be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework and Work in transit and shall insure against at least the following perils: fire, lightning, extended coverage, theft, vandalism, and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;
 - 3. Include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. Cover materials and equipment in transit for incorporation in the Work or stored at the site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and

5. Be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.
- B. CONTRACTOR shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an additional insured.
- C. Any special insurance to be included in the property insurance policy shall be procured by CONTRACTOR. CONTRACTOR shall be solely responsible for determining the need for such other special insurance.
- D. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 6.4 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 6.5.

SC-7.9 PERMITS

Add the following new paragraph immediately after paragraph 7.9.A:

- B. Contractor shall abide by all conditions of permits obtained including any additional insurance requirements requested by the permitting agency(s).

SC-7.13 SAFETY AND PROTECTION

Add the following paragraph to Section 7.13.A of the General Conditions:

The CONTRACTOR shall abide by all applicable provisions of TCA, Chapter 31, "Underground Utility Damage Prevention" and all amendments thereto. Obtaining a permit does not relieve the CONTRACTOR of the responsibility of complying with this law. CONTRACTOR shall notify utilities 3-10 days prior to starting any work operation that includes but is not limited to excavation, trenching, boring, pile-driving, blasting or digging which might affect any adjacent utility. The designated toll-free number for the Tennessee One-Call system for location of underground utilities is **1-800-351-1111**.

SC-10.3 PROJECT REPRESENTATION

Delete paragraph 10.3.A of the General Conditions in its entirety and insert the following in its place:

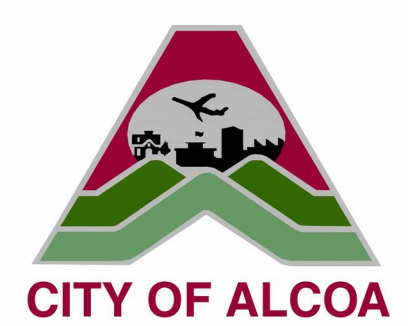
OWNER will furnish a Resident Project Representative to assist OWNER in observing the performance of the Work. The Resident Project Representative shall, under the direction of the OWNER, be responsible for the daily and routine duties and responsibilities outlined in Sections 10.2, 10.5, and 10.8 of the General Conditions.

SC-14.2 TEST AND INSPECTIONS

Add the following sentence to the end of paragraph 14.2.D of the General Conditions:

Such testing and inspections shall be for, but not limited to, the determination of source, suitability and applicability of the material and equipment.

END OF SECTION



**TECHNICAL
SPECIAL PROVISIONS**

TECHNICAL SPECIAL PROVISIONS

PART 1 – GENERAL REQUIREMENTS

- 1.01 Standard Specifications
- 1.02 Manual on Uniform Traffic Control Devices

PART 2 – ENVIRONMENTAL REQUIREMENTS

- 2.01 Remedial Action Plan

PART 1 – GENERAL REQUIREMENTS

All commands and references in, or in connection with, the text in this Technical Special Provision (TSP) document are written to direct contractor responsibility or action unless otherwise specified. This section specifies the minimum general requirements for this contract. These section one general requirements apply to all aspects of the contract, including, but not limited to the materials, installation, measurement and payment requirements for all contract items. The contractor is responsible for all work in this document. All costs associated with the work in this contract shall be included in the contract unit price for items included in the bid items list for this project and no separate payment shall be made.

1.01 Standard Specifications

Except as otherwise specially required by the plans or specifications, all work on this project shall fully comply with the Tennessee Dept. of Transportation Standard Specifications for Road and Bridge Construction, Current Edition, (also referred to herein as the “Standard Specifications”), and the TDOT Standard and Structure Drawings (also referred to herein as the “Standard Drawings”).

1.02 Manual on Uniform Traffic Control Devices

All traffic control equipment and work zones shall conform to the requirements of the current Manual on Uniform Traffic Control Devices for streets and highways.

**REMEDIAL ACTION PLAN PURSUANT TO THE
TENNESSEE VOLUNTARY CLEANUP OVERSIGHT AND
ASSISTANCE PROGRAM
AIRPORT CENTER DEVELOPMENT
(FORMER ALCOA WEST PLANT)
MILL STREET AND FARADAY STREET
ALCOA, TENNESSEE 37701**

Prepared for:
**AIRPORT CENTER DEVELOPMENT PARTNERS, L.L.C.
100 E. 10TH STREET, SUITE 600
CHATTANOOGA, TENNESSEE 37402**

**NOVEMBER 2008
AMENDED JULY 2014**

**REMEDIAL ACTION PLAN PURSUANT TO THE
TENNESSEE VOLUNTARY CLEANUP OVERSIGHT AND ASSISTANCE
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AIRPORT CENTER DEVELOPMENT
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Prepared for:
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Prepared by:
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Amended by:
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7991 SHAFFER PARKWAY, SUITE 300
LITTLETON, CO 80127**

**NOVEMBER 2008
AMENDED JULY 2014**

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Figure 1-1 – Site Location Map
Figure 1-2 – Remedial Action Plan Areas

APPENDICES

Appendix A – Soil Management Plan

1.0 INTRODUCTION

Airport Center Development Partners, LLC (ACDP) retained KU Resources, Inc. (KU Resources) to prepare a Remedial Action Plan (RAP) for the proposed Airport Center Development of the Former ALCOA, Inc. (ALCOA) West Plant located south of the Mill Street and Faraday Street intersection in Alcoa, Blount County, Tennessee. The Draft RAP was submitted to the Tennessee Department of Environment and Conservation (TDEC) in November 2008 in support of an anticipated Brownfield Voluntary Cleanup agreement for the Former West Plant property between TDEC and ACDP.

Since the submittal of the original Draft RAP in 2008, the City of Alcoa has acquired several parcels of land within the Former West Plant from ALCOA in order to construct a new high school and related surface facilities. On behalf of ACDP, IRG Assumptions, LLC is submitting this Amended Draft RAP to TDEC to reflect the disposition of the environmental conditions for the remaining 276 +/- acres of the Former West Plant to be acquired by ACDP from ALCOA; hereinafter referred to as the Site. Figure 1-1 is a Site location map.

The former ALCOA West Plant was permanently closed by ALCOA in 1989. The Site encompasses approximately 276 acres of the original West Plant which is now comprised of vacant land surrounded by an area of residential, school, and commercial properties. The Site has been characterized through numerous investigations that included the sampling and analysis of soil, groundwater, and soil vapor. The results of the site characterization activities have been documented in the report entitled "Environmental Summary Pursuant to the Tennessee Voluntary Cleanup Oversight and Assistance Program, Airport Center Development (Former ALCOA West Plant), Mill Street and Faraday Streets, Alcoa, Tennessee 37701, dated November 2008 (ES Report). The ES Report and this Amended Draft RAP have been developed to meet the environmental technical requirements for entering the Site into the Voluntary Cleanup Oversight and Assistance Program (VOAP) of TDEC. One step in the VOAP process is the development of a RAP based on the site characterization data and the proposed development plans for the Site. The goal of the RAP is to promote the development of the Site through a cooperative effort with the ACDP, TDEC, and the community. The RAP recommends future investigations, remediation, monitoring, and/or maintenance requirements and obligations necessary to protect human health and the environment, during and after Site redevelopment. The requirements and obligations of the RAP, once approved by TDEC, will become part of the VOAP Brownfield Voluntary Agreement or Consent Order.

The ALCOA West Plant consisted of approximately 360 acres of land in its entirety, of which approximately 60 acres were occupied by structures when the West Plant was in operation. Based on historical operations at the ALCOA West Plant, the results documented in the ES Report, and the acreage acquired recently by the City of Alcoa directly from ALCOA, the remaining 276 +/- acres comprising the Site have been divided into four development areas for purposes of this Amended Draft RAP: the Historical Non-Industrial Area of the Site (N-I Area); the Former Oil Ponds Area; the Former Landfill WPB; and the Former Main Plant Area. The four development areas of the Site are presented on Figure 1-2.

For each of the development areas, a general description, summary of environmental conditions, and recommended list of remedial actions is provided. More detailed area descriptions and environmental conditions are presented in the ES Report.

Appendix A to this Amended Draft RAP is a Soil Management Plan (SMP) that presents various details related to managing the environmental conditions documented in the ES Report, as well as those that may be encountered during the Site development. TDEC involvement procedures are also included in the SMP. The SMP in Appendix A has also been amended to reflect the current configuration of the Site.

2.0 HISTORICAL NON-INDUSTRIAL AREA

2.1 Description

The N-I Area encompasses approximately 146 acres of the Site and is situated around the perimeter of the Former Oil Ponds Area, Former Landfills WPE/WPB, and the Former Main Plant Area. The N-I Area is highlighted in "green" on Figure 1-2. Review of historical documents for the Site indicated that the N-I Area, except for two isolated locations, consisted of open undeveloped land. Two additional small areas of apparently limited environmental impact were also identified.

The southern portion of the N-I Area is leased for cattle grazing and includes several barns, outbuildings, and animal pens currently used for livestock management. The northern and western portions of the N-I Area are currently grass-covered fields with small isolated stands of trees, although historical use may have included grazing of livestock. The eastern section of the N-I Area extends across Mill Street and consists of open fields abutting residential property. The N-I Area also includes land on the south side of Pistol Creek that extends from the east to west property lines. The City of Alcoa maintains a public recreational trail through the area south of Pistol Creek.

ALCOA formerly operated a Brick Factory adjacent to the north bank of Pistol Creek in the southern portion of the N-I Area. The Former Brick Factory manufactured bricks from local natural clays for use at the Former Main Plant. The building for the Former Brick Factory remains, and is used for cattle pens, feedstock storage, and farm maintenance equipment. ALCOA formerly operated a storm water retention basin on the west side of the N-I Area, referred to as the Former Outfall 002 Basin.

The two additional areas exhibiting concentrations of constituents (COCs) in excess of screening values are the Drainage Ditch W-02 and a former railroad spur in the northern part of the N-I Area.

2.2 Environmental Conditions

Only two areas of the N-I Area were used by the former ALCOA West Plant – Former Outfall 002 Basin and the Former Brick Factory. The following is a discussion of the environmental conditions at both of these areas:

- The Former Outfall 002 Basin was investigated in 1998 with two test borings advanced through the fill in the former basin (ICF, 1998) and again in August 2008 with three soil borings by KU Resources. All five borings were advanced and continuously sampled through the overburden into the shale bedrock. The soil profile encountered beneath the fill material consisted of weathered shale and clay residuum. A minor amount of metallic/aluminum paste and elevated concentrations of semi-volatile organic compounds (SVOCs) and total petroleum hydrocarbons (TPH) were encountered in one of the 1998 soil borings along with a trace amount of polychlorinated biphenyls (PCBS). The SVOC and TPH results appear to indicate the presence of some residual mineral spirits associated with the paste. The Former Outfall 002 Basin is currently covered with soil ranging in thickness from 10 to 20 feet (ft). Groundwater depth in the area is approximately 12.5 ft below ground surface (bgs).

- CEC evaluated the Former Brick Factory as part of a 2002 "West Plant – Site Assessment." Environmental conditions identified at the Former Brick Factory included underground storage tanks (USTs), aboveground storage tanks (ASTs), and storage of oils and chemicals, all for farm use. *De minimus* areas of staining were observed on the concrete floor of the Former Brick Factory, equipment storage areas, and near the concrete pads for the ASTs. Although visual impacts were observed in isolated areas near the ASTs, sampling and laboratory analysis of soils did not indicate the presence of environmental impacts with the exception of one elevated concentration of lead above screening levels. Confirmation samples collected from the UST sites during closure indicated no impacts above TDEC closure guidance, and the agency granted official "closure" in June 1991. Samples collected from a slightly stained area adjacent to the northwest corner of the Former Brick Factory building exhibited concentrations of SVOCs, lead, and PCBs above screening levels. No soil cover exists in this area.
- Three surface soil samples (WP-S-OF-002-1 through 3) were collected during the 2001 West Plant Environmental Assessment near the Drainage Ditch W-02 area (reference not found), southwest of Landfill WPB. Some SVOCs were detected in surface soil sample WP-S-OF-002-1 and, to a lesser extent, in sample WP-S-OF-002-2. EnSafe installed three shallow borings around ESA sample point WP-S-OF-002-1 to a depth of 3 ft. Two soil samples were collected from each boring. No volatile organic compounds (VOCs) were detected above the residential Preliminary Remedial Goals (PRGs). The 0- to 0.5-ft soil samples exceeded the residential PRG of 0.06 mg/kg for benzo(a)pyrene in three borings (WP-S-OF-204, WP-S-OF-205, and WP-S-OF-206). The concentration range for benzo(a)pyrene was between 0.20 to 0.34 mg/kg (EnSafe, 2004). The presence of benzo(a)pyrene in the surface soil southwest of Landfill WPB presents a recognized environmental condition (REC) to the Site.
- In 2004, EnSafe advanced three soil borings (RS-01, RS-02, and RS-03) along the railroad spur; located on the north portion of the N-I Area. Three samples were collected from each of the three soil borings. According to EnSafe, the soil sample (RS0100) collected from boring RS-01 in the 0.0- to 0.5-ft interval, contained benzo(a)anthracene at 1.1 mg/kg, benzo(a)pyrene at 1.4 mg/kg, and benzo(b)fluoranthene at 1.4 mg/kg (EnSafe, 2004). These parameters exceeded their residential PRGs. The PRG for iron was also exceeded. The presence of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene above residential PRGs in the surface soil presents a REC to the Site. It should be noted that these PAHs are likely associated with the treated railroad ties in this area. The presence of iron is due to high background levels found in native Tennessee soils and, therefore, does not present a REC to the Site. Soils depths in this area extend to depths over 12 ft. The depth to groundwater in the area is in excess of 22 ft.

2.3 Remedial Actions

2.3.1 Groundwater Use Restriction (North of Pistol Creek)

A restriction on groundwater use for potable or agricultural purposes will be placed on the deed for the Site north of Pistol Creek, stipulating that such use is prohibited. All water for use at the Site will be provided by the local municipal water authority.

2.3.2 Remove Former Outfall 002 Basin

The results of environmental sampling in the Former Outfall 002 Basin did not indicate the presence of gross impacts; however, several isolated areas were identified. Therefore, in order to assist in the development of this area, the Former Outfall 002 Basin will be removed and relocated to an engineered fill cell located on the Site or sent to an approved off-Site disposal facility. If on-Site management of material generated from the removal of Former Outfall 002 Basin is selected, a plan detailing the engineered fill cell will be submitted for TDEC review, comment, and approval, in accordance with Section 4.0 of the SMP attached as Appendix A. Documentation of acceptable remediation of the Former Outfall 002 Basin will also be submitted to TDEC, pursuant to Section 4.0 of the SMP.

2.3.3 Evaluate and Remove, as Necessary, Impacts at FT-FL-12

An area of elevated SVOCs, lead, and PCBs was detected in an isolated area near the Former Brick Factory. Therefore, in order to assist in the development of this area, the area exhibiting elevated soil concentrations will be evaluated further to determine whether the elevated concentrations of constituents can be confirmed. If confirmed, suspect soil in this area will be removed and relocated to an on-Site engineered fill cell located on the Site or sent to an approved off-Site disposal facility. If on-Site management of material generated from the removal of impacts in this area is selected, a plan detailing the engineered fill cell will be submitted for TDEC review, comment, and approval, in accordance with Section 4.0 of the SMP attached as Appendix A. Documentation of acceptable remediation of the FT-FL-12 will also be submitted to TDEC, pursuant to Section 4.0 of the SMP.

2.3.4 Evaluate and Remove, as Necessary, Impacts at Drainage Ditch W-02

An area of elevated SVOCs was detected in an isolated area near Drainage Ditch W-02. Therefore, in order to assist in the development of this area, the area exhibiting elevated soil concentrations will be evaluated further to determine whether the elevated concentrations of constituents can be confirmed. If confirmed, suspect soil in this area will be removed and relocated to an on-Site engineered fill cell located on the Site or sent to an approved off-Site disposal facility. If on-Site management of material generated from the removal of impacts in this area is selected, a plan detailing the engineered fill cell will be submitted for TDEC review, comment, and approval, in accordance with Section 4.0 of the SMP attached as Appendix A. Documentation of acceptable remediation of the Drainage Ditch W-02 area will also be submitted to TDEC, pursuant to Section 4.0 of the SMP.

2.3.5 Evaluate and Remove, as Necessary, Impacts at RS-1

An area of elevated SVOCs was detected in an isolated area near the railroad spur sampling location RS-01. Therefore, in order to assist in the development of this area, the area exhibiting elevated soil concentrations will be evaluated further to determine whether the elevated concentrations of constituents can be confirmed. If confirmed, suspect soil in this area will be removed and relocated to an on-Site engineered fill cell located on the Site or sent to an approved off-Site disposal facility. If on-Site management of material generated from the removal of impacts in this area is selected, a plan detailing the engineered fill cell will be submitted for TDEC review, comment, and approval, in accordance with Section 4.0 of the SMP attached as Appendix A. Documentation of acceptable remediation of the RS-01 location will also be submitted to TDEC, pursuant to Section 4.0 of the SMP.

2.3.6 Follow Soils Management Plan During Redevelopment

The attached SMP was developed, in part, to cover activities that involve soil disturbance during Site development. Soil disturbances related to maintenance activities, utility and building construction projects, or demolition projects fall also within the purview of the plan. The information in the SMP allows Site personnel to evaluate and anticipate potential impacts that may be present at a proposed soil disturbance prior to commencement of activities, and allows a more accurate assessment of potential management requirements. The existence of the SMP will be noticed on the deed(s) to the Site.

2.3.7 Close Monitoring Wells

An existing network of monitoring wells is present within the western section of the N-I Area. The monitoring wells to be closed include: WPP-1, WPP-2, WPP-3, WPC-5, WPC-6, WPC-7, WPC-9T, and WPC-10T.

2.3.8 Remove Incorrect Deed "Notice of Hazardous Substances" on Area

Existing area-wide deed notices or restrictions on the Site will be amended to indicate that no hazardous substances are located within the N-I Area. Recommended amendments to the deed notices and restrictions will be presented to TDEC for review, comment, and approval.

3.0 FORMER OIL PONDS AREA

3.1 Description

The Former Oil Ponds, highlighted in magenta on Figure 1-2, were reportedly built in the 1920s as part of the Lake Louise storm water management system for oil-contaminated storm water and miscellaneous liquid oily wastes generated from the former ALCOA West Plant. The Former Oil Ponds Area encompasses approximately 6 acres and the ponds consisted of a series of three unlined lagoons located southwest of Lake Louise that were utilized for sludge collection. The former Oil Ponds are currently covered by at least 2.5 feet of clay and silty clay soil and the accumulated sludge remains in place.

3.2 Environmental Conditions

Historical characterization of the Former Oil Ponds Area has included downgradient trenching, soil borings within the pond footprints, soil vapor sampling, and groundwater sampling. Soil samples collected from the trenching at downgradient locations yielded no detections of VOCs, SVOCs, or PCBs. No metals other than iron exceeded the EPA Region 9 PRG and the detected concentration was less than the Site background value. Two soil borings were drilled in 2008 within the pond footprints. A sample from boring KUSB-22 (8 to 10 ft bgs), located in the southernmost of the three ponds, yielded results that indicated several PAHs were present at concentrations above the residential soil screening levels. The same sample yielded one detection of the PCB Aroclor 1254 at 0.49 mg/kg that exceeded the residential soil screening level of 0.22 mg/kg. Arsenic was detected in samples from both borings at concentrations (3.7 and 6.1 mg/kg) which are above the residential soil screening level of 0.39 mg/kg but within the regional background range. A soil vapor sample from a point in the Oil Pond footprint yielded no detected VOCs. Groundwater monitoring wells located between the Former Oil Ponds and Pistol Creek do not exhibit any adverse impacts. Monitoring well KUSB-21, installed in the footprint of the northernmost pond as part of the 2008 supplemental site characterization activities included in the ES Report, did not exhibit impacts above screening levels. The groundwater level beneath the Former Oil Pond Area is approximately 14 ft bgs at well KUSB-21. The unimpacted wells adjacent to Pistol Creek (i.e., CEC-PZ-6, MCI-6, MCI-7, MCI-8) exhibit groundwater levels of approximately 6 ft bgs.

3.3 Remedial Actions

3.3.1 Groundwater Use Restriction (North of Pistol Creek)

A restriction on groundwater use for potable or agricultural purposes will be placed on the deed for the Site north of Pistol Creek, stipulating that such use is prohibited. All water for use at the Site will be provided by the local municipal water authority.

3.3.2 Place Green Space/Recreational Land Use Restriction

The use of the Former Oil Ponds Area will be restricted through a deed notice to "green space" or "recreational" uses only, and certain types of future uses (e.g., housing) will be limited. Construction may include commercial buildings, paved areas (e.g., parking, sidewalks, and trails), or non-permanent occupancy structures (e.g., lavatories, shelters).

3.3.3 Place Appropriate Deed "Notice of Hazardous Substances" on Area

The presence of potential impacts in the Former Oil Ponds Area will be noted in deeds for the Site. Deed notification language will be submitted to TDEC for review, comment, and approval.

3.3.4 Soil Cover

The Former Oil Ponds are reportedly covered by at least 2.5 feet of a clay and silty clay soil material. Final Site grades will be established and augmented with additional soil, as needed, in order to maintain a minimum 3-ft cover thickness.

3.3.5 Follow Soils Management Plan During Redevelopment

The attached SMP was developed, in part, to cover activities that involve soil disturbance during Site development. Soil disturbances related to maintenance activities, utility and building construction projects, or demolition projects fall also within the purview of the plan. The information in the SMP allows Site personnel to evaluate and anticipate potential impacts that may be present at a proposed soil disturbance prior to commencement of activities, and allows a more accurate assessment of potential management requirements. The existence of the SMP will be noticed on the deed(s) to the Site.

3.3.6 Close Monitoring Wells

An existing network of monitoring wells is present within the Former Oil Pond Area. The monitoring wells and piezometers to be closed include: MCI-6, MCI-7, MCI-8, CEC-PZ-6, and KUSB-21.

4.0 FORMER LANDFILL WPB

4.1 Description

Landfill WPB (colored orange on Figure 1-2), located at the southeast edge of the Former ALCOA Main Plant encompasses approximately 8 acres. Landfill WPB received construction debris and general plant refuse from 1966 to 1981. The landfill was closed with clay cover, 2 ft thick at the west edge to 9 ft thick at the east edge. Waste in the landfill is 4 to 14 ft thick and consists of rubble within a slag/cinder matrix. Material identified in the southwest portion of the landfill included wire, cable, foil, burnt cardboard, paint, and paint thinner cans

4.2 Environmental Conditions

Low concentrations of VOCs, SVOCs, PCBs, and metals were detected in soil samples collected from Landfills WPB and WPE. However, none of the concentrations were above screening levels. No Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP SVOCs, or TCLP pesticides/herbicides were detected, and low levels of TCLP metals were detected. The W-02 drainage ditch, located south of Landfill WPB, drains surface water from this area. However, most of the drainage area feeding the ditch is on the N-I Area.

4.3 Remedial Actions

4.3.1 Groundwater Use Restriction

A restriction on groundwater use for potable or agricultural purposes will be placed on the deed for the Site north of Pistol Creek, stipulating that such use is prohibited. All water for use at the Site will be provided by the local municipal water authority.

4.3.2 Soil Cover

The Landfill WPB area is covered with varying thicknesses of a clay/soil material. Final Site grades will be established and augmented with additional soil, as needed, to maintain a minimum 3-ft cover thickness. Engineered covers such as paving or buildings can also be utilized as soil covers.

4.3.3 Follow Soils Management Plan During Redevelopment

The attached SMP was developed, in part, to cover activities that involve soil disturbance during Site development. Soil disturbances related to maintenance activities, utility and building construction projects, or demolition projects fall also within the purview of the plan. The information in the SMP allows Site personnel to evaluate and anticipate potential impacts that may be present at a proposed soil disturbance prior to commencement of activities, and allows a more accurate assessment of potential management requirements. The existence of the SMP will be noticed on the deed(s) to the Site.

4.3.4 Correct Deed "Notice of Hazardous Substances" on Area

The existing deed notice on the Former Landfill WPB will be amended, as appropriate, and replaced with an accurate description that reflects actual Site conditions. Recommended amendments to the deed notices and restrictions will be presented to TDEC for review, comment, and approval.

5.0 FORMER MAIN PLANT AREA

5.1 Description

Detailed descriptions of the Former Main Plant Area are presented in the ES Report. The Former Main Plant Area, highlighted in blue on Figure 1-2, encompasses approximately 115 acres. For the RAP, the Main Plant Area includes the following areas of the Site:

- **Former Main and Albron Plants:** The Main Plant and Albron Plant Areas of the Site formerly contained manufacturing facilities, administrative buildings, and various support and warehouse buildings.
- **Landfill WPA:** Landfill WPA, located on the northern end of the Site in the northwestern portion of the Former Main Plant Area, was active from 1976 through 1979 and utilized for the disposal of oily rolling mill solids, Stoddard solvents, mineral spirits still bottoms, oily diatomaceous earth filter materials and filter paper, off-spec aluminum paste and powder. Landfill WPA was designated as a State Superfund Site under a 1984 Commissioner's Order, due to buried ignitable wastes. Landfill WPA was closed in 1979 and covered using a 1- to 4-ft thick clay. Groundwater in Landfill WPA area is approximately 22 to 48 ft bgs.
- **Landfill WPC:** Landfill WPC, located south of the Former Main Plant Area and southeast of the Former Albron Plant, was used to dispose off-specification aluminum paste and powder, mineral spirits still residue, spent diatomaceous earth, and used filter cloth from 1973 through 1976. Landfill WPC is designated as a State Superfund Site under a 1984 Commissioner's Order because of buried ignitable wastes (similar to Landfill WPA). The landfill was closed with a clay cap approximately 4 to 11 ft thick in 1979 (LAW, 1986). Groundwater levels in the area are approximately 26 to 45 ft bgs.
- **Landfill WPF:** Landfill WPF is located south-central portion of the Site and slopes downward to the southwest, toward the WPC drainage basin. Landfill WPF encompasses approximately 2 acres and was reportedly used in the 1920s and 1930s to dispose re-melter skimmings, aluminum, chloride dust, construction debris, and residue from a coal gasification plant. Landfill WPF contains wastes derived from the Gas Manufacturing Plant; otherwise known as the Coal Gasification Plant or Gas Plant. The Gas Manufacturing Plant existed directly northeast of Landfill WPF. The Gas Plant was demolished circa 1930.
- **WPC Drainage Basin:** The WPC Drainage Basin is a topographic/man-made depression located approximately 300 ft south of Landfill WPC and adjacent to Landfill WPF. The WPC Drainage Basin was previously utilized for the management of coal-gasification tar from a Gas Manufacturing Plant. During 1993 and 1999 investigations of this area, the pitch-like material was found to be from 4 in. to 3 ft thick in the bottom of the basin area. Groundwater levels in the area are approximately 36 to 45 ft bgs.

- **Former Hexane AST:** The Former Hexane AST was located in the general vicinity of the W-37 UST in the north-central portion of the Former Main Plant Area and was removed during the ALCOA West Plant demolition activities in 1997 and 1998.
- **Former Spray/Cooling Pond:** The Former Spray/Cooling Pond was located west of the Former Main Plant Area and south of the Former Albron Plant Area. The Pond was formerly utilized to cool processing waters and consists of a concrete-walled and concrete-lined enclosure. The concrete-lined bottom of the pond is approximately 1 ft thick. The concrete floor of the Former Spray/Cooling Pond is currently covered with approximately 1 ft of fill.

5.2 Environmental Conditions

Detailed information regarding the environmental condition of the Former Main Plant Area is presented in the ES Report. The following is brief summary of the environmental conditions in each of the areas.

Landfill WPA

Borings were advanced at the perimeter of Landfill WPA in 1990. The soil samples exhibited elevated levels of metals and low concentrations of TPH. PCBs, VOCs, and SVOCs were not detected in the samples.

From 1995 through 1998, an extensive groundwater monitoring program at Landfill WPA evaluated the groundwater quality for VOCs, SVOCs, Target Analyte List (TAL) metals, and PCBs. Results of groundwater sampling conducted as part of the 2008 supplemental site characterization did not indicate the presence of impacts to groundwater. The cumulative historical data set demonstrates that no significant release to groundwater has occurred at the Landfill WPA Area.

The 2008 supplemental site characterization included the installations of soil vapor points within and at the perimeter of Landfill WPA. The samples exhibited concentrations of benzene and ethylbenzene above screening levels.

Landfill WPC

Soil borings were advanced at the perimeter, as well as the interior of Landfill WPC. The soil samples collected exhibited elevated concentrations of VOCs, SVOCs, PCBs, and metals. In addition to the subsurface soil samples, near-surface soil samples were collected from the cover in-place above Landfill WPC. No PCBs or VOCs were detected above the residential PRG in the surface soil samples. Metals and isolated occurrences of SVOCs were observed in the surface soil samples.

A network of groundwater monitoring wells exists around the perimeter and downgradient of Landfill WPC. During the 1990 to 1998 groundwater investigations at Landfill WPC, with the exception of wells WPC-1 and WPC-4, no VOCs, SVOCs, or PCB compounds were detected in the samples collected. Wells WPC-1 and WPC-4 abut the southern and western edge of the landfill, respectively. Groundwater samples from the wells associated with Landfill WPC were collected as part of the 2008 supplemental site characterization activities. No impacts were detected in the groundwater samples except at monitoring

well WPC-1. VOCs, SVOCs, PCBs, and metals were detected in groundwater collected from WPC-1. LNAPL was also observed in WPC-1.

Soil vapor samples collected as part of the 2008 supplemental site characterization indicated the presence of VOCs; however, only the concentrations of benzene and ethylbenzene exceeded screening levels.

Landfill WPF

Detectable concentrations of VOCs, SVOCs, and metals were found in samples of the waste material collected from Landfill WPF area. No VOCs, SVOCs, or pesticides/herbicides were detected in the TCLP leachate extracted from the samples. Low concentrations of TCLP copper (ND to 0.69 mg/L) and TCLP zinc (ND to 0.36 mg/L) were detected in the samples.

Soil borings were advanced adjacent to and within the footprint of the Former Coal Gas Plant, located adjacent to WPF. Only acetone was detected in the soil samples collected from the borings located adjacent to WPF. No PCBs were detected. The soil samples collected from within the footprint of the Former Coal Gas Plant exhibited concentrations of VOCs and SVOCs above screening levels.

Soil vapor samples collected as part of the 2008 supplemental site characterization indicated the presence of VOCs; however, only the concentrations of benzene and ethylbenzene at one location exceeded screening levels.

WPC Drainage Basin

Soil samples analyzed from the WPC Drainage Basin indicated the presence of bis(2-ethylhexyl)phthalate and PAHs at concentrations that exceeded screening levels. Samples of surface material within the basin contained PAHs, benzene, toluene, and xylenes at concentrations above screening levels. PCBs were detected at one location; however, the concentration did not exceed screening levels.

Samples of a pitch-like material and soil were collected from the area and analyzed for TCL VOCs, TCL SVOCs, TAL metals, cyanide, and PCBs. The results of the leach testing demonstrated that this material was stable and did not leach hazardous constituents.

In addition to the source area samples, surface soil samples were collected from the drainage ditch located downgradient of Landfill WPC. PCBs and SVOCs were not detected. VOCs and metals at low concentrations were detected.

Surface water samples were obtained from the WPC Drainage Basin, and the only constituents detected, other than minor levels of several metals, were toluene and methylene chloride.

Soil vapor results indicated no impact at this area.

Former Hexane AST

Soil sampling and soil vapor tests conducted in the area of the Former Hexane AST indicated the presence of residual concentrations of hexane. The hexane appears to be isolated to one limited area near the former tank.

Former Spray/Cooling Pond

Results of soil sampling indicated the presence of VOCs, SVOCs, and PCBs.

USTs

The USTs formerly operated at the ALCOA West Plant were removed as part of the closure of the facility. Soils and groundwater samples were collected from the UST locations. Based on the results of the analysis, TDEC issued closure letters for all the USTs. The 2008 supplemental site characterization included collecting samples from one UST area (W-22) believed to still contain impacts. No impacts were identified.

5.3 Remedial Actions

5.3.1 Groundwater Use Restriction

A restriction on groundwater use for potable or agricultural purposes will be placed on the deed for the Site north of Pistol Creek, stipulating that such use is prohibited. All water for use at the Site will be provided by the local municipal water authority.

5.3.2 Evaluate and Remove, As Necessary, Lead Impact at FPO5

An area of elevated lead was detected in an isolated area near the Former Hexane AST. Therefore, in order to assist in the development of this area, the area exhibiting elevated soil concentrations will be evaluated further to determine whether the elevated concentrations of lead can be confirmed. If confirmed, suspect soil in this area will be removed and relocated to an on-Site engineered fill cell or managed through off-Site disposal. If on-Site management of material is selected, a plan detailing the engineered fill cell will be submitted for TDEC review, comment, and approval, in accordance with Section 4.0 of the SMP attached as Appendix A. Documentation of acceptable remediation will also be submitted to TDEC, pursuant to Section 4.0 of the SMP.

5.3.3 Soil Cover

Most of the Former Main Plant Area is covered with varying thicknesses of soil. Final Site grades will be established and augmented with additional soil, as needed, to maintain a minimum 3-ft cover. Engineered covers such as paving or buildings can also be utilized as soil covers.

5.3.4 Follow Soils Management Plan During Redevelopment

The attached SMP was developed, in part, to cover activities that involve soil disturbance during Site development. Soil disturbances related to maintenance activities, utility and building construction projects, or demolition projects fall also within the purview of the plan. The information in the SMP allows Site personnel to evaluate and anticipate potential impacts that may be present at a proposed soil

disturbance prior to commencement of activities, and allows a more accurate assessment of potential management requirements. The existence of the SMP will be noticed on the deed(s) to the Site.

5.3.5 Vapor Intrusion Evaluation/Prevention

Prior to construction, an evaluation of soil vapor concerns will be conducted at the proposed development in accordance with the attached SMP. Soil vapor screening can be used to determine appropriate soil vapor management alternatives, or engineering precautions can be incorporated into development without further testing.

5.3.6 Groundwater Monitoring

The two monitoring wells indicating impacts will be maintained at the perimeter of the Former Main Plant Area near the identified landfills. The monitoring wells will be sampled annually. If no impacts are identified in the perimeter groundwater wells within a 5-year span, the monitoring will be discontinued. The proposed groundwater monitoring network will consist of existing wells WPC-1 through WPC-4. All other wells will be decommissioned.

5.3.7 Correct Deed "Notice of Hazardous Substances" on Area

The existing deed notice on the Former Landfills WPB and WPE will be amended, as appropriate, and replaced with an accurate description that reflects actual Site conditions. Recommended amendments to the deed notices and restrictions will be presented to TDEC for review, comment, and approval.

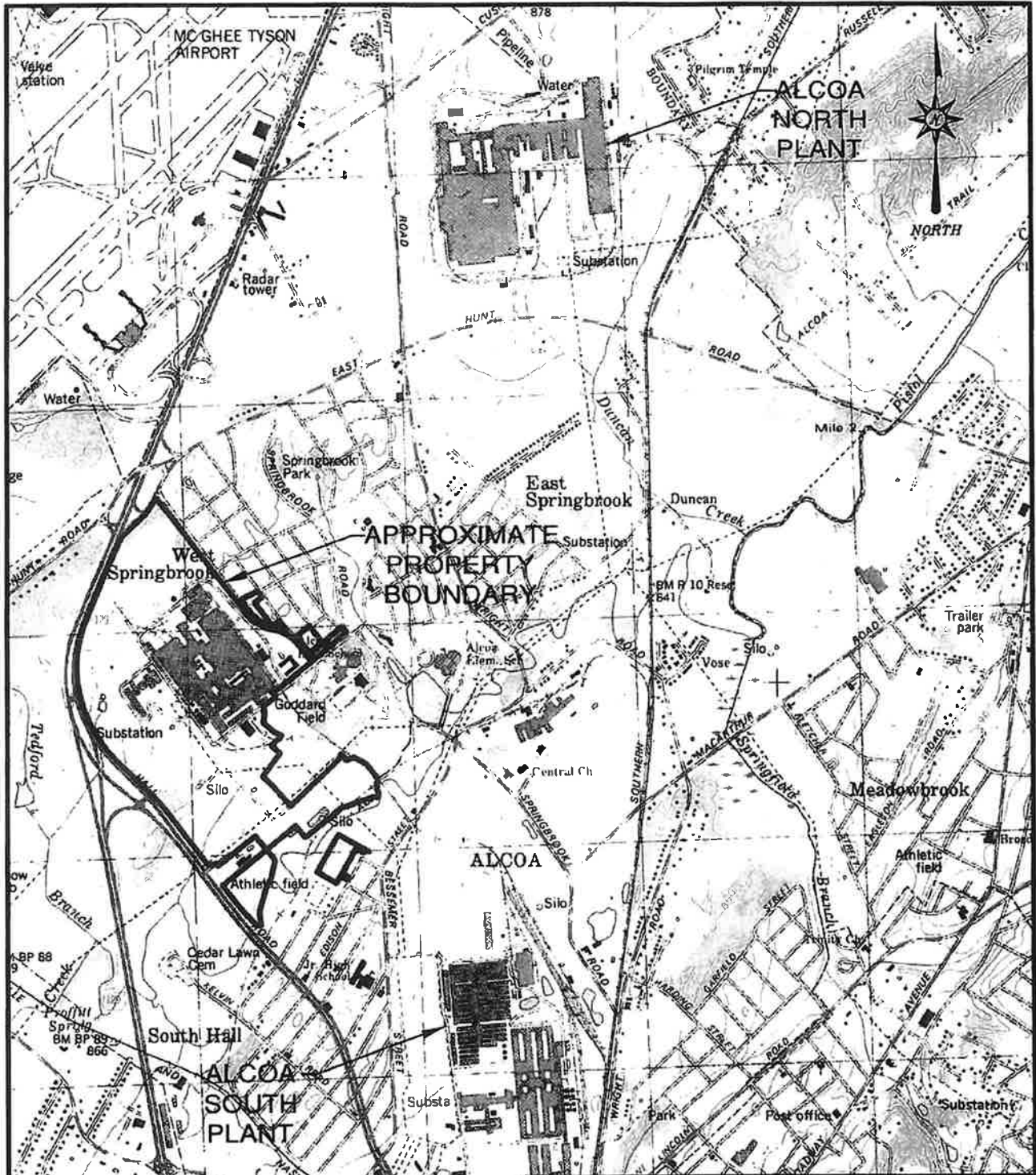
5.3.8 LNAPL Removal

The LNAPL observed in monitoring well WPC-1 will be removed to the extent it is technically and economically feasible to do so. The details of an active removal system targeting the observed LNAPL will be submitted to TDEC for review, comment, and approval. Also presented will be an explanation of what will be considered "technically and economically feasible", including such factors as LNAPL recovery efficiencies and rates, LNAPL recovery system costs, LNAPL migration potential, and other pertinent information. Upon TDEC approval of the LNAPL removal system, the system will be installed and operated, unless and until it is demonstrated to be technically and/or economically infeasible to do so. A demonstration of technical or economic infeasibility can be made at any time after system operation. Reviews will be conducted at least every 2 years in evaluating the removal system(s).

5.3.9 Restriction on Post Development Intrusion Activities for Landfills

The existing deed notice will be amended restricting post development intrusion activities within the Landfills WPA, WPC, and WPF areas of the Former Main Plant Area. Recommended amendments to the deed notices and restrictions will be presented to TDEC for review, comment, and approval.

FIGURES



REFERENCE
 USGS 7.5-MIN TOPOGRAPHIC QUADRANGLE
 MARYVILLE, TENNESSEE
 DATED: 1966, EDITED: 1979.



REVISION	DATE	DESCRIPTION
RPJ	07/07/2014	REVISED OVERALL BOUNDARY

APPROVED	MRU 11/07/2008	 BARGE WAGGONER SUMNER & CANNON, INC.
CHECKED	FWB 11/07/2008	
REVISED	RAM 10/14/2008	
CAD FILE NO.	08052A002	
PROJECT NO.	IRG.08052TP.P	

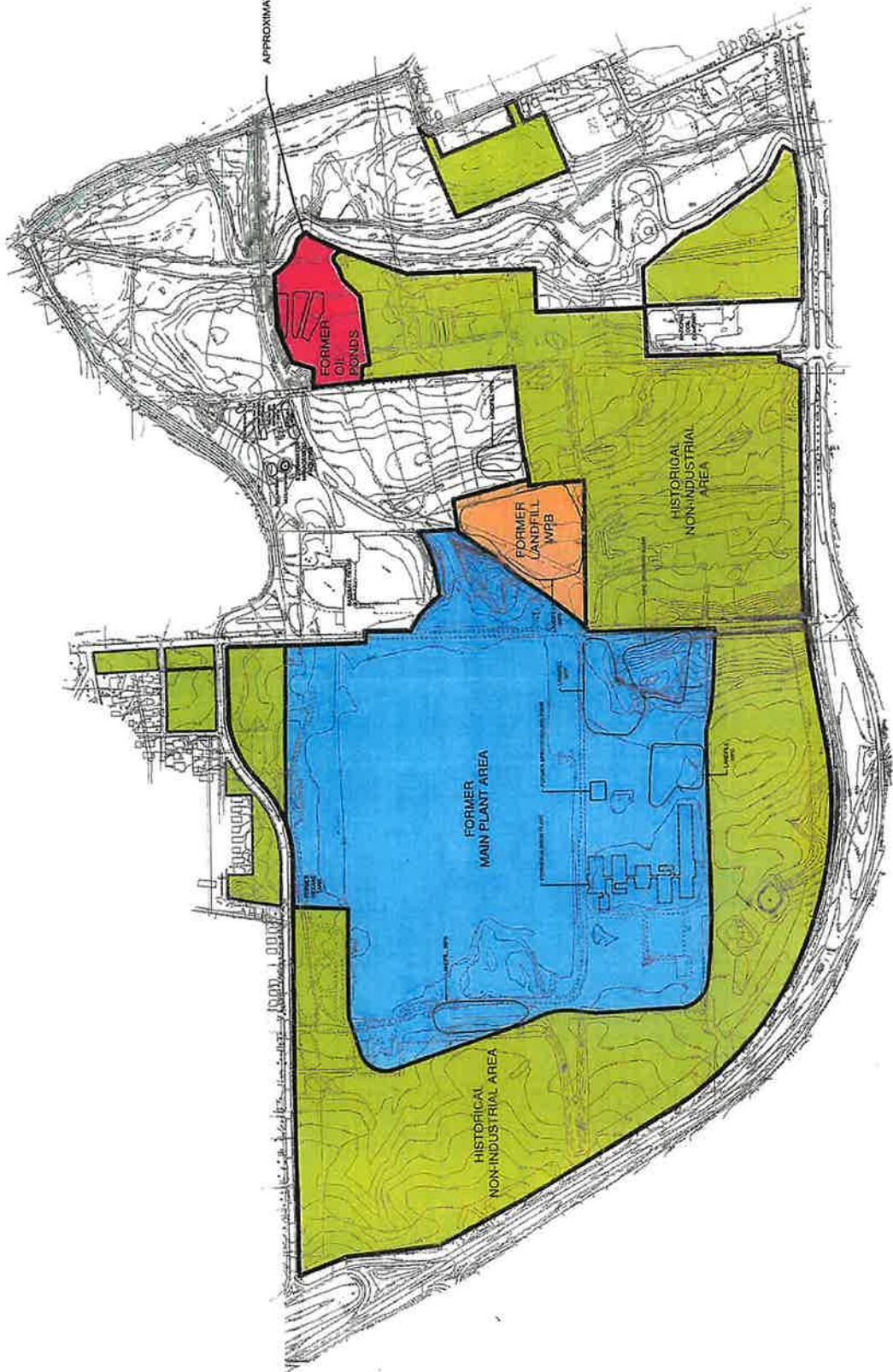
FIGURE 1-1
SITE LOCATION MAP
AIRPORT CENTER DEVELOPMENT

ALCOA
 BLOUNT COUNTY, TENNESSEE

PREPARED FOR
AIRPORT CENTER
DEVELOPMENT PARTNERS, L.L.C.
 CHATTANOOGA, TENNESSEE



APPROXIMATE PROPERTY BOUNDARY



SCALE - FEET

FIGURE NO. 1-2

DRAWING TITLE: REMEDIAL ACTION PLAN AREAS

PROJECT: AIRPORT CENTER DEVELOPMENT
ALCOA, TENNESSEE

PREPARED FOR: AIRPORT CENTER DEVELOPMENT PARTNERS, LLC
CHATTANOOGA, TENNESSEE



PREPARED BY:

DATE APPROVED:

REVISED OVERALL BOUNDARY

CHECKED BY: FWB 11/07/2008 APPROVED BY: MRU 11/07/2008

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APPENDIX

Appendix A
Soil Management Plan

**SOIL MANAGEMENT PLAN
Airport Center Development
Mill Street and Faraday Street
Alcoa, Tennessee**

1.0 INTRODUCTION

This Soil Management Plan (SMP) provides certain procedures to be followed related to subsurface conditions on the approximately 276 acres comprising the Airport Center Development in Alcoa, Tennessee (Site). It describes procedures for monitoring, assessing, and managing environmentally suspect material encountered during the construction of the proposed development, and presents the necessary requirements to adequately address potential volatile organic compounds in soil vapor at the Site. This SMP describes the excavation, stockpiling, backfilling, revegetation, and environmental institutional control procedures to be implemented when intrusive work (such as earthmoving trenching, excavating test pits, drilling, or other soil disturbance work) is to be performed at designated locations at the Site. Based on the site characterization activities conducted, the Site can be divided into three areas for the purposes of implementing the SMP. The three areas are the Former Main Plant Area, the Former Oil Ponds Area, and the remaining areas of the Site. Figure SMP-1, attached, depicts these areas.

The SMP provides a standard risk management approach related to historical environmental impacts at the Site to be used by the property owner, developers, tenants, contractors, and any other person performing work at the Site. Most potential exposures to soils at the Site are or will be addressed by pathway elimination through the use of soil covers, pavement, and buildings. However, it is anticipated that suspect materials or chemicals of concern (COCs) may be encountered during the short-term construction phases of the development and will be addressed by this SMP. Soil vapor intrusion into future buildings and exposures to Site workers during construction are also addressed.

COCs associated with historical Site operations have been thoroughly identified and located through extensive investigation and testing under the guidance of the Tennessee Department of Environment and Conservation (TDEC). The plant history and materials management procedures have been well documented including former operational areas. The future development of the Site has been planned to minimize exposure and disturbance of these former plant operation areas.

The majority of soil handling will be completed as non-suspect or not contaminated, unless pre-assessment or field monitoring procedures, dictated by this SMP, show or indicate otherwise. The protocols detailed herein are to be followed during earthwork activities associated with Site redevelopment or in the event that the soil cover (expected to consist of either asphalt/concrete pavement or soil) is disturbed during future redevelopment or Site maintenance activities.

Section 2.0 presents the SMP requirements related to the entire Site. Section 3.0 describes additional requirements for both the Former Main Plant and Lake Louise Areas. Section 4.0 contains the mechanisms established for TDEC oversight related to this SMP.

2.0 SITE-WIDE REQUIREMENTS

There are a number of standard soil management protocols typically followed when redeveloping former industrial properties. This SMP incorporates these protocols, as presented in this section, as Site-wide requirements.

2.1 Environmental Professional

Whenever soil disturbance work will be performed on the Site, the owner, tenant, contractor, or other person conducting the work will retain an Environmental Professional (EP) to be available, on call, to quickly visit the Site in the event of a discovery of a potential environmental concern, including the discovery of suspect materials. It will be the EP's responsibility to quickly assess the relative environmental severity of the discovered conditions and recommend potential soil management options. The EP shall also be responsible for interacting with TDEC in accordance with Section 4.0 of this SMP. The EP shall have the requisite knowledge of environmental laws and regulations and typical impacted soils management procedures to efficiently make "real time" decisions when responding to environmental concerns related to construction activities.

In conjunction with the sale of the redevelopment parcels, environmental insurance will be in place. The discovery of any potential environmental concerns will require coordination with the carrier in order to protect previous owners and/or tenants. Any potential environmental concerns requiring action will need to first be noticed to the carrier and "prior written consent" must be obtained from the carrier prior to initiating any physical work in the event environmental insurance applies.

2.2 TDEC Preconstruction Meetings

No earthmoving activity will be initiated for any phase of Site development unless a preconstruction meeting has been held to review the contents of this SMP. The designated TDEC representative(s), the EP, and the representatives of the contractor responsible for the overall earthmoving project and the contractor's health and safety official are mandatory participants in the meeting. Other participants necessary to assure adherence to this SMP, as selected by either TDEC or the EP, must also attend the preconstruction meeting. The TDEC preconstruction meeting may be coordinated with any meetings with the City of Alcoa related to obtaining a grading permit for the work. The earthmoving contractor should include a copy of this SMP as part of the documentation in support of its grading permit application. Under no circumstances will the receipt of a grading permit supplant the requirement for the TDEC preconstruction meeting.

2.3 Earthwork Activities

To minimize potential impact to human health and environment, numerous controls will be implemented during earthwork construction activity in all of the redevelopment areas. These controls will include dust mitigation, storm water management, water storage for dewatering activities (if needed), revegetation of unpaved areas, open excavations and stockpiles, and equipment decontamination. A review of the SMP with the general contractor will be conducted to ensure that the specified measures are incorporated into any work at the Site. Nothing in this SMP serves to eliminate any required permits or authorizations related to earthmoving activities, nor excuses the responsible parties from executing the work in conformance with all local, state, and federal laws, regulations, or requirements.

2.3.1 Dust Mitigation

Earthwork activities during construction are a potential source for dust generation. Construction vehicle traffic, grading and trench excavations, soil transport, soil stockpiles, and wind-overexposed soils can all be potential sources of dust. Implemented controls will include the following:

- Perform construction activities in a manner such to minimize visible emissions of dust.
- Designated parking areas for construction personnel, which will reduce traffic and soil disturbance. The parking areas will be in gravel lots or similar non-intrusive areas such as paved sections of the property.
- Water trucks or other water sources will be available to periodically spray disturbed and exposed soils and construction traffic roads.
- The speed for construction vehicles will be regulated, as conditions permit, throughout the property on unpaved (i.e., gravel, earthen) roadways so as to minimize dust emissions.
- Drop height limits during soil loading and transport will be established to control soil migration during transport.
- Open excavations will be minimized to areas currently under construction and backfilled daily, if possible, to reduce exposing soils unnecessarily.
- During extremely high winds, limited excavation and earthwork will be performed until winds subside or sufficient water is provided to prevent soil migration.
- Vehicles transporting material will be managed in such a way to prevent dust and materials from falling off trucks.
- Additional measures may be implemented, as necessary, or as Site conditions warrant.

2.3.2 Storm Water Management

Excess surface run-off may be generated through high rainfall events or by overuse of water sprays to reduce dust generation. The following describe the measures that will be undertaken in order to manage the potential for excess surface water run-off from the Site.

- A Storm Water Pollution Prevention Plan and Notice of Intent must be filed with TDEC in the event that more than 1 acre of soil will be disturbed simultaneously.
- The developer and subcontractors will adhere to the requirements of the TDEC Waste Discharge Requirements for Discharges of Storm Water Associated with Construction Activity and the TDEC Erosion & Sediment Control Handbook (Second Edition, March 2002).
- Best Management Practices (BMPs) will be utilized to minimize storm water and sediment runoff from construction areas where soil will be disturbed.
- Silt fences will be installed along the perimeter of disturbed areas and temporary drainage ditches or berms will be constructed to divert surface water runoff from the excavation and soil stockpile areas.
- Grading by contractors should be such that uncontrolled storm water will not be directed off the Site.
- Storm water will be collected in sedimentation basins to prevent sediment leaving the property.
- Straw bales or other BMPs will be placed around storm drains and catch basins.
- Tarps or similar coverings will be placed over soil stockpiles to reduce sediment runoff.

- Barriers will be placed at the entrances and exits to the Site to divert traffic through designated areas containing large gravel or rumble strips, which will collect soil from vehicles' tires and minimize soil from being tracked off-Site.
- All storm water controls will be monitored routinely, and after storm events, and cleaned or replaced, as necessary. This activity should follow the requirements of the TDEC Waste Discharge Requirements for Discharges of Storm Water Associated with Construction Activity and the TDEC Erosion & Sediment Control Handbook (Second Edition, March 2002).

2.3.3 Dewatering

The depth of the saturated soils zone varies across the Site, ranging from 5 feet (ft) to over 50 ft below existing ground surface. Dewatering activities are not anticipated, but may become necessary in isolated areas where suspect materials are encountered or have been previously identified (see Sections 2.4 and 3.0). The clayey surface soils encountered at the Site limit the amount of infiltration of surface water, although a potential exists for excavations to become filled with surface water run-off. The following measures will be undertaken to manage/prevent dewatering activities during construction:

- Open excavations must be kept free of water except for those designated for the management of storm water.
- The contractor shall pump out all water accumulated in the excavation, including rainwater. Water removed from excavations shall be collected and temporarily stored at the Site.

If dewatering occurs, the EP will be consulted and the water will be sampled and analyzed for representative COCs. The EP will recommend proper management and disposal procedures. Should discharge to a sanitary sewer be a recommended option, the City of Alcoa will be contacted for proper authorization.

2.3.4 Re-Vegetation of Unpaved Areas

Following completion of backfilling and grading operations, the disturbed areas shall be properly seeded and mulched to re-establish vegetative growth, unless pavement or buildings are to be used as the final soil cover material. Once an adequate stand of vegetation is established, all installed erosion and sediment control measures shall be removed. If revegetation is not feasible due to seasonal timing or other reasons, the soils will be stabilized with geotextiles, mulches, or other suitable alternatives. Approval of other suitable alternatives or stabilizations will be agreed to by owner or EP.

2.3.5 Open Excavations and Stockpiles

Construction activities at the Site will require the excavation of materials that may result in the creation of temporary open pits and stockpiles. The following precautions will be implemented:

- Excavation shall be performed using appropriate equipment designed for the particular purpose.
- When intrusive work is being performed in areas with existing soil cover, personnel shall visually check the material being excavated to determine when the bottom of the cover soil has been reached.
- All excavations shall be sloped or shored in accordance with Occupational Safety and Health Administration (OSHA) regulations. Additionally, safety fencing shall be installed around the perimeter of all open excavations if the excavations will not be immediately backfilled.
- Soil stockpiles shall be delineated and appropriate erosion and sediment control measures (i.e., silt fence, straw bales) shall be installed downslope of the excavation and stockpile areas.
- Stockpiles shall be located adjacent to the excavation area or at an alternative approved area.
- Cover soil materials shall be stockpiled separately from any underlying soils.
- Where the delineation of stockpiled material and the existing ground surface cannot be readily distinguished, the excavated soils shall be placed on a marker layer (such as a geotextile fabric) to provide a distinction between the excavated soils and ground surface.

2.3.6 Equipment Decontamination

All equipment used to excavate and backfill any material other than cover soil shall be properly decontaminated prior to demobilization from the Site. Water used for decontamination purposes will be from a potable source. In the event equipment is operated within an impacted area, water or other materials used for decontamination shall be containerized/segregated and stored on-Site for appropriate characterization and determination of management alternatives by the EP.

2.4 Suspect Materials or Structures

2.4.1 Introduction

This section describes the procedures and monitoring to ensure that suspect materials or structures identified during construction are screened and managed appropriately. Suspect materials might include environmental media with an identified odor or visual staining, tanks, or other evidence of environmentally sensitive materials or wastes. Soils containing oil, sheens, solvents or hydrocarbon odor, debris, slag, staining, or other discoloration will be considered suspect materials. If materials are designated as suspect during the monitoring process, assessment and mitigation will follow the steps outlined in the following sections. If a suspect material is encountered, the contractor will temporarily stockpile the suspect material for evaluation by the EP in order to determine proper management options.

If an underground storage tank is uncovered and identified as formerly containing petroleum hydrocarbons or hazardous substances, the EP will be notified to determine the appropriate course of action, including any required notices to either TDEC or the Alcoa Fire Department.

If a liquid or sludge is encountered, it will be collected and stored in sealed and protected containers. The material will be characterized by the EP. All sampling and testing will be performed as required by law and regulation. Underground piping which does not contain contaminated, hazardous, flammable, or explosive liquid, sludge, or gas, may be cut and capped. Any removed pipe will be handled and disposed according to applicable laws and regulations. If the pipe appears to contain asbestos, the pipe will be

handled and disposed according to applicable air quality and hazardous waste laws and regulations, unless assessment activities prove the pipe to be asbestos free.

2.4.2 Suspect Material Stockpiles

Any suspect material stockpile(s) will be isolated from surrounding non-suspect materials by placing the suspect material on a plastic or other impervious surface to prevent the impact of underlying materials. The minimum thickness of plastic or impervious material will be 6 millimeter. The protective barrier must be in good condition, joined at the seams, held down with sand bags or other weights, and securely anchored to minimize headspace where vapors may accumulate. Additionally, the excavated soil will be covered with continuous heavy duty plastic sheeting (6 millimeter thickness). Special care will be given to minimize the generation of dust and to minimize the handling or movement of the soil.

2.4.3 Confirmation Sampling

In the event that suspect materials are encountered, confirmation sampling will be conducted, at the direction of the EP, to demonstrate that materials left in place are below screening levels or represent acceptable risk and to determine the lateral and vertical extent of the suspect material.

The following general protocols should be used to collect confirmation samples:

- **Deep Excavations:** For excavations over 2 ft in depth, sidewall samples will be collected from freshly exposed soil at one half of the excavation depth with a sampling interval of one sample every 50 lineal ft of sidewall. Sidewall samples will not be taken from more than four discrete locations. Composite samples may not be used for volatile organic compound (VOC) analysis. If the sidewall is less than 50 ft in length, only one sample will be collected at 1/2 the depth of the excavation. Samples collected from the bottom of the excavation will be at approximately 50 ft centers for areas greater than 2,500 square (sq) ft. Samples obtained from the bottom of the excavation will not be composited. A minimum of one sidewall and one bottom excavation sample will be collected per excavation.
- **Shallow Excavations:** For excavations less than 2 ft in depth, confirmation samples will be collected using a 50-ft grid. Samples will be collected from the corners of the excavation and from node points on the grid. For excavations less than 50 sq ft, a minimum of five confirmation samples will be collected – one from each corner and one from the center.
- **Presence of Groundwater or Surface Water:** If an excavation extends into groundwater or if surface water accumulates in the excavation, a grab water sample will be obtained in lieu of an excavation bottom sample. The water sample from the excavation will be collected using appropriate sampling methodologies. The water sample will be filtered prior to analysis for metals.

2.4.4 Suspect Material Handling

For reuse on-Site, confirmation samples must be collected from the stockpile material. The methodology for stockpile sampling is as follows:

- For volumes between 1 and 500 cubic yards: One composite sample will be obtained per 100 cubic yards of stockpile material for stockpiles equal to or less than 500 cubic yards.
- For volumes between 501 and 1,000 cubic yards: A minimum of six composite samples will be collected.
- For volumes over 1,001 cubic yards: Six composite samples plus one additional composite sample will be collected for every additional 500 cubic yards of stockpile material. For example: a stockpile containing 1,100 cubic yards will require seven confirmation samples. A stockpile containing 1,900 cubic yards will require eight confirmation samples.

For analysis of all substances other than VOCs, a composite sample will consist of four combined grab samples. Samples submitted for VOC analysis will be based on the field screening of the four initial grab samples. The grab sample with the highest field screening reading will be selected for analysis and collected using U.S. EPA Method 5035. Each of the grab samples used to create the composite should be collected in a manner that is representative of the entire stockpile.

The suspect material will be analyzed for: 1) VOCs (EPA Method 8260b), 2) metals (EPA Method 6010), 3) mercury (EPA Method 7470), 4) hexavalent chrome (EPA Method 7196a), 5) polynuclear aromatic hydrocarbons (EPA Method 8270c), and 6) polychlorinated biphenyls (EPA Method 6010), as determined appropriate by the EP. Additional testing may be warranted based on the material and the possible origin or relation to the proposed development.

The test results will be reviewed by the EP and a recommended management option will be selected. Proper off-Site disposal will not require advance approval from TDEC pursuant to the VOAP. Any on-Site reuse or management of soils recommendation will be submitted to TDEC with adequate justification to demonstrate that it is protective of human health and the environment, in accordance with Section 4.0 of this SMP. Material and soil, excavated during the construction project, that cannot be reused on-Site will be removed from the Site and disposed at properly-permitted facilities.

2.4.5 Suspect Materials Approved for On-Site Re-Use

On-Site brick rubble, pavement, concrete, rebar, and natural rock may be used as backfill material without a solid waste permit as defined in Tennessee Rule 1200-17-02(1)(b)3 paragraph (xiii). Oversize rock or other oversize material may not be suitable as engineered fill without some processing. If staining or odors are evident on the materials, the construction debris must be treated as suspect materials and stockpiled and analyzed as defined in Section 3.2.4.

3.0 AREA SPECIFIC REQUIREMENTS

In addition to those requirements presented above for the entire Site, the following additional precautions are required for the Former Main Plant and Former Oil Pond Areas.

3.1 Former Main Plant and Former Oil Ponds Area

3.1.1 Engineering Controls - Soil Vapor

Throughout the Former Main Plant and Former Oil Ponds Area, appropriate engineering controls may be employed to mitigate potential soil vapor intrusion into indoor areas without additional testing. Engineering controls can include sub-slab venting (passive or active), installation of vapor barriers, or other methods demonstrated to control soil vapor migration. Engineering solutions related to soil vapor intrusion will be presented to TDEC in accordance with Section 4.0 of this SMP. Where engineering controls have been established to mitigate soil vapor intrusion concerns, no additional testing related to indoor air exposures will be performed.

3.1.2 Soil Vapor Testing

In the Former Main Plant and Former Oil Pond Area, proposed deep foundation or utility excavations will be prescreened utilizing soil vapor testing. The approximate depth for testing of deep utility excavations will be 5 ft above the bottom of the excavation. The actual depth of the soil vapor testing may vary depending on the depth of the utility or foundation excavation, the construction methodology of the subcontractor, and any proposed cuts or fill to the existing ground elevation. A minimum testing depth of 1 ft below the existing ground elevation will be maintained. Soil vapor testing will be performed at a 50-ft interval for proposed linear excavations such as utility corridors. For non-linear utility corridors, or for the deep excavations, a soil vapor test interval of one test for every 2,500 sq ft of surface area (50 ft x 50 ft) will be utilized.

Unless engineering controls are implemented, soil vapor samples will also be collected to evaluate future building occupant exposure due to vapor intrusion of volatile contaminants from the subsurface. To assess the need for soil vapor intrusion mitigation and make appropriate recommendations, a pre-construction evaluation for the areas of any proposed building will be implemented by the EP within the Former Main Plant and Former Oil Ponds Area of the Site. This evaluation will include on-Site testing for the presence of volatile organic COCs in soil vapor in those areas. The objective of these analyses will be to identify the contaminants likely to be encountered in each area of excavation and determine whether a soil vapor intrusion concern is justified based upon the planned redevelopment.

The results of soil vapor analyses will be provided to TDEC by the EP in accordance with Section 4.0 of this SMP. Any risk evaluation or recommended mitigation measure will also be presented by the EP. Appropriate health and safety protocols and mitigation measures will be implemented based on the results of the soil vapor testing. In order to ensure that the mitigation measures are implemented, the EP will develop protocols for reporting and/or monitoring mitigation measures. The EP will be responsible for assuring that these requirements are met by all Site construction contractors and field personnel.

3.2 Former Main Plant Area Only

3.2.1 On-Site Environmental Professional

Any person performing earthmoving work or implementing a soil vapor intrusion mitigation measure within the Former Main Plant Area must have the qualified EP on-Site to evaluate and determine appropriate management alternatives for suspect materials identified during the construction phase of the project.

The EP should be on-Site at all times during construction activities. The EP will prepare recommendations for management of suspect materials and potential soil vapor exposure concerns, as deemed necessary based on the results of testing.

3.2.2 Health and Safety Plan

Prior to initiating intrusive work within the Former Main Plant Area, each contractor will prepare its own site-specific environmental Health and Safety Plan (HASP) that is consistent with applicable occupational safety and health standards. A site-specific HASP that includes all subcontractors and activities that may be exposed to COCs in subsurface soils, soil vapor, or groundwater may be prepared by the principal contractor or project manager. This document will identify specific personnel responsible for ensuring that the HASP is followed.

The HASP will be required for all contractors of construction activities that involve soil grading and excavation, foundation or utility installation, or other construction activities that will extend below the existing ground surface. Contractors involved with landscaping activities in clean fill areas will be exempt. Contractors that will not disrupt existing soils and that will not be exposed to COCs in the subsurface (i.e., carpenters, painters) will also be exempt from this Site-specific HASP. These guidelines will not relieve any contractor of its obligations related to federal, state, and local laws and regulations for worker health and safety planning and training requirements. The contractor preparing the site-specific HASP will be responsible for verifying that the HASP meets the applicable OSHA standards for health and safety and properly accounts for potential COCs that may be encountered at the Site. Contractors whose work will involve direct contact with COCs must require their employees to follow the protocols detailed in the contractor's HASP. Contractors must provide employees that are properly trained in health and safety protections and will use the appropriate personal protective equipment, as described in the HASP, for the expected work hazards that may be experienced.

Any construction activity that will involve clean-up of "hazardous wastes" or constitutes "clean-up operations" as defined by the OSHA standards for Hazardous Waste Operations and Emergency Response (HAZWOPER), (federal regulations (29 CFR 1910.120)), will be performed by a contractor with properly trained employees. Because the contractor's employees may come in direct contact with COCs, these employees must be HAZWOPER trained, in accordance with OSHA standards. Soil or other suspect material that is oily, visibly stained or discolored, or contains a solvent or hydrocarbon odor, will only be handled by HAZWOPER trained personnel until it is determined the soil, or suspect material, does not warrant such precautions.

Contractors performing earthwork activities should be notified of the Site-specific HASP requirements through contract documents or other means. Each contractor should be familiar with the Site-specific HASP and incorporate health and safety protocols for their specific construction activity and the current Site conditions. HAZWOPER regulations may be incorporated, if necessary. Routine daily construction meetings should be held to inform and train all personnel about the requirements of the HASP and any associated monitoring programs.

The HASP should at a minimum include sections that address: 1) General Site Information, 2) Key Site Personnel and Health and Safety Responsibilities, 3) Property/Site Background, 4) Job Hazards/Hazard Mitigation, 5) Air Monitoring Procedures, 6) Personnel Protective Equipment, 7) Work Zones and Site

Security Measures, 8) Decontamination Measures, 9) General Safe Work Practices, and 10) Contingency Plans/Emergency Information.

4.0 TDEC INVOLVEMENT

4.1 Introduction

The redevelopment of the Site will be conducted in accordance with the TDEC VOAP. As such, TDEC holds an important role in making sure the redevelopment and future uses of the Site do not pose unacceptable adverse environmental or human health risks. This SMP has been drafted in anticipation of a number of instances where the EP will be making notifications and recommending remedial measures to TDEC. This section of the SMP is intended to present the mechanisms to be used during redevelopment of the Site to ensure TDEC is involved to the extent that they require.

4.2 Pre-Construction Meeting

The EP will arrange the preconstruction meeting required pursuant to Section 2.2 of this SMP. The meeting will be scheduled after contractor selection has been made, with sufficient notice to TDEC and the contractor to arrange schedules without delaying the construction process. At the meeting the requirements of this SMP and any other potential concerns of the meeting participants will be reviewed. Notification contact information will be exchanged at the meeting to ensure that it is, and will be, current during Site activities. For work within the Former Main Plant area the contractor should have its HASP available for review during the meeting.

4.3 Management of Suspect Materials

Whenever suspect materials are discovered during Site redevelopment (as presented in Section 2.4 of this SMP), the EP will be immediately notified and, if not already on-Site, will arrange a Site visit as soon as practicable. The EP will be responsible for monitoring the contractor's handling and management of the suspect materials, and performing any required testing pursuant to Sections 2.4.3 and 2.4.4 of this SMP. Once the EP has evaluated the size and complexity of the environmental concern posed by the suspect material, the EP will determine whether immediate TDEC notification is warranted. In general, instances of limited spatial impact with evidence of minimal contamination would not require immediate TDEC notification, and situations of severe and/or extensive contamination, or significantly unlike that anticipated by the EP, would require immediate TDEC notification. Ultimately, the decision as to whether immediate notification is warranted will be within the informed professional judgment of the EP.

If the EP recommends that the suspect material be managed off-Site at a properly-permitted facility, the stockpiled suspect material will be tested only for disposal purposes in accordance with TDEC regulations and the receiving facility's requests. Upon removal of the suspect material from the Site, the EP will provide a documentation report to TDEC. The report will include a brief explanation of the discovery, source (if known), assessment, and management of the materials. All suspect material and confirmation testing results will be included in the report. The permitted off-Site facility will be identified in the report and all material transport documentation can be included.

Whenever a permanent on-Site management option for suspect materials is selected, the EP will prepare a "Recommendation for on-Site Permanent Management of Suspect Materials Request" (Suspect

Materials Recommendation) for TDEC review, consideration, and approval or disapproval. The Suspect Materials Recommendation will present the following:

- Details related to the discovery of the suspect material, such as the location within the Site, the amount of the material segregated, and the temporary management options implemented.
- Testing results from the stockpiled suspect materials and the confirmation testing results in the area from which the materials originated.
- The physical and/or chemical properties of the suspect materials to the extent that they are related to the recommended on-Site permanent management option.
- Any new institutional or engineering controls necessary to ensure that recommended on-Site permanent management option maintains long-term effectiveness.
- A risk evaluation of the recommended on-Site permanent management option demonstrating that the option is protective of human health and the environment.
- Any other information known to the EP that may impact TDEC's review of the request.

Upon receipt of the Suspect Materials Recommendation, TDEC will approve, disapprove, or conditionally approve the Suspect Materials Recommendation within 20 days. Should TDEC not issue its decision within the designated time period, the EP may submit a second Suspect Materials Recommendation. If no decision is issued by TDEC within 20 days of the second Suspect Materials Recommendation, it will automatically be deemed approved by TDEC. This provision (providing an unwritten approval by TDEC of the Suspect Materials Recommendation) will be clearly and prominently presented within the second Recommendation.

4.4 Soil Vapor Intrusion Engineering Controls

Soil vapor concerns have been identified in the Former Main Plant and Former Oil Ponds Area of the Site. One option of managing these concerns is through proven engineering controls that provide either a barrier or venting system beneath buildings to prevent indoor air impacts from the subsurface. Should the redevelopment of the Site incorporate such engineering controls, no additional soil vapor assessment work will be required for the areas addressed by the controls. The EP will submit to TDEC, for review and approval, a detailed description of any engineering control of soil vapor intrusion into indoor air. The description of the proposed controls should be of sufficient detail (including engineered drawings and/or specifications) for TDEC to evaluate the effectiveness of the control. No engineering control for soil vapor intrusion will be implemented on the Site without TDEC approval.

In situations where no engineering controls for soil vapor intrusion are proactively proposed and where potential construction worker exposures are of concern pursuant to Section 3.1.2 of this SMP, the EP will prepare a "Recommendation Related to Soil Vapor Concerns" (Soil Vapor Recommendation) for TDEC review, consideration, and approval or disapproval. The Soil Vapor Recommendation will present the following:

- Soil vapor testing results from within the area(s) of anticipated soils disturbance.
- The physical and/or chemical properties of the chemicals detected in the soil vapor(s) to the extent that they are related to the recommended mitigation measure or risk characterization.
- Any new institutional or engineering controls necessary to ensure that any recommended mitigation measure maintains its long-term effectiveness.
- A risk evaluation of any recommended mitigation measure, or lack of need thereof, demonstrating that the option is protective of human health and the environment.
- Any modification in work practices deemed necessary to protect construction workers from unacceptable soil vapor inhalation hazards.
- Any other information known to the EP that may impact TDEC's review of the request.

Upon receipt of the Soil Vapor Recommendation, TDEC will approve, disapprove, or conditionally approve the Soil Vapor Recommendation within 20 days. Should TDEC not issue its decision within the designated time period, the EP may submit a second Soil Vapor Recommendation. If no decision is issued by TDEC within 20 days of the second Soil Vapor Recommendation, it will automatically be deemed approved by TDEC. This provision (providing an unwritten approval by TDEC of the Soil Vapor Recommendation) will be clearly and prominently presented within the second Recommendation.

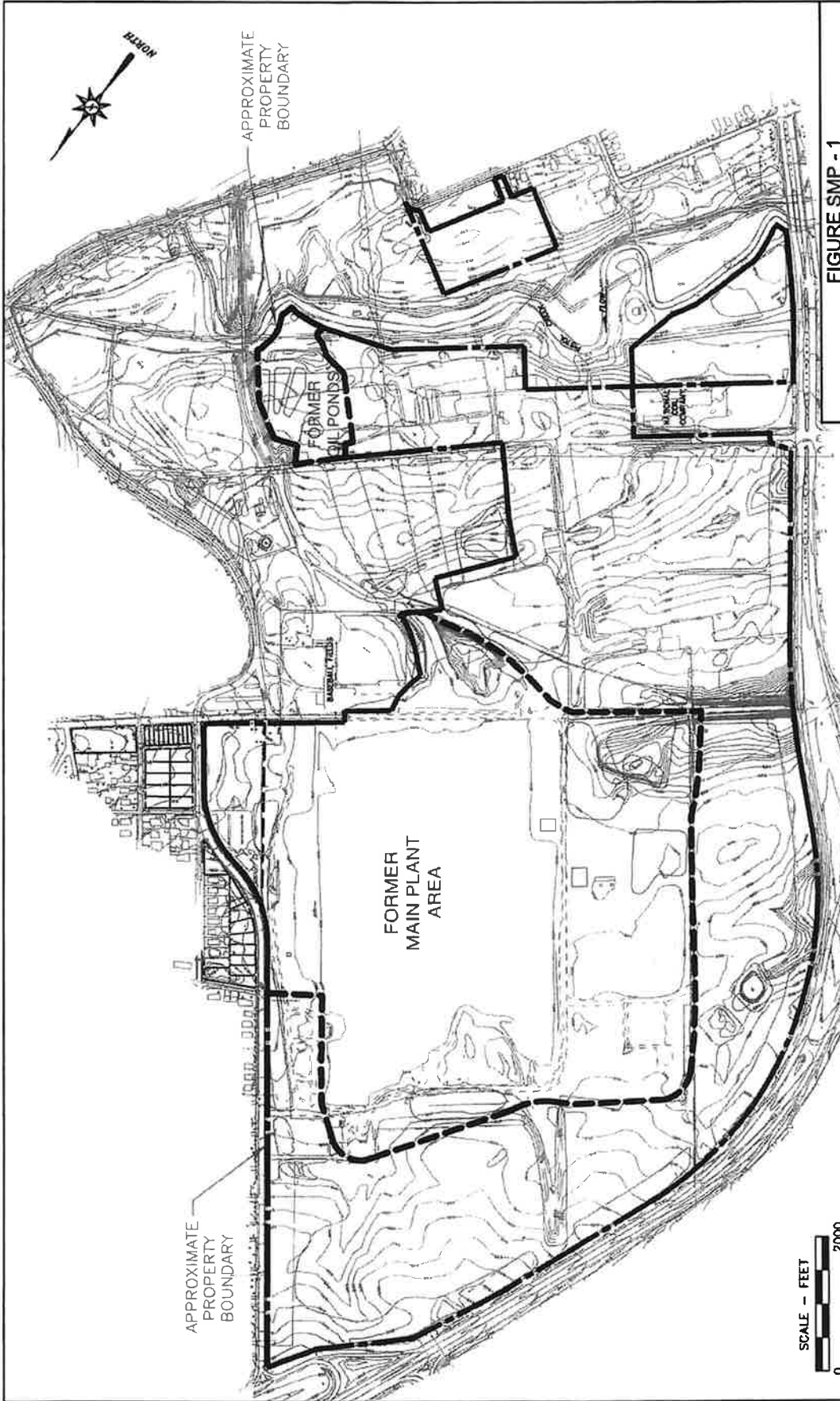


FIGURE SMP - 1
 SOIL MANAGEMENT PLAN
 AIRPORT CENTER DEVELOPMENT
 ALCOA, TENNESSEE
 PREPARED FOR
 AIRPORT CENTER
 DEVELOPMENT PARTNERS, L.L.C.
 CHATTANOOGA, TENNESSEE

REFERENCE:
 SURVEY JOB NUMBER 08-1036 DATED 03-06-08
 PREPARED BY CONTINENTAL AERIAL SURVEYS, INC.
 OF ALCOA, TENNESSEE AND SUPPLIED BY BARGE
 WAGGONER SUMNER & CANON, INC. OF KNOXVILLE,
 TENNESSEE APRIL 2008

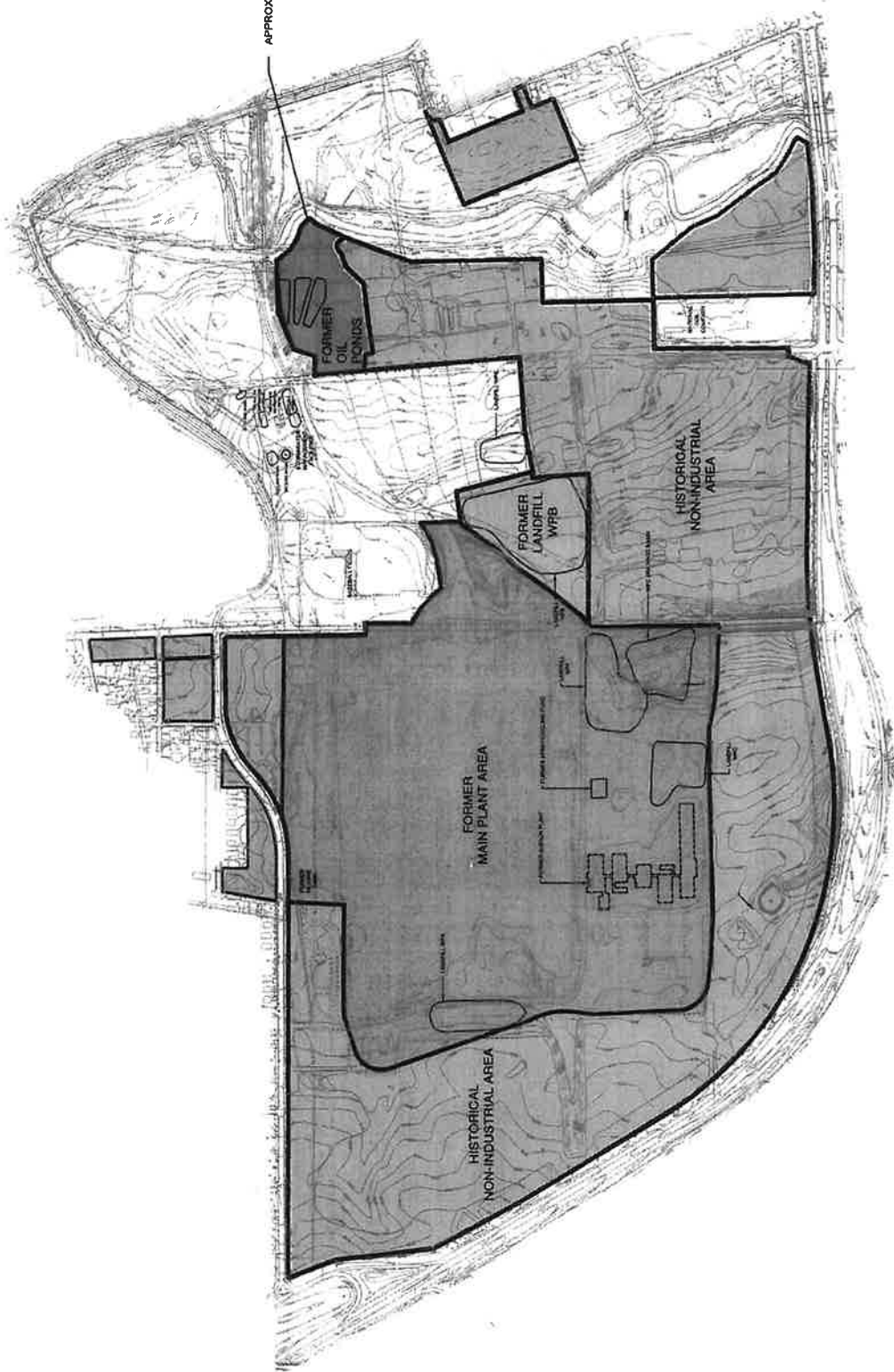


REVISION	DATE	DESCRIPTION
RPJ	07/07/2014	REVISED OVERALL BOUNDARY
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DRAWN	RAM 10/14/2008	
CAD FILE NO.	08052A003	
PROJECT NO.	IRG.08052TP.P	

BWSC
 BARGE WAGGONER SUMNER & CANON, INC.
 1000 ...
 KNOXVILLE, TN 37920



APPROXIMATE PROPERTY BOUNDARY



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1	REVISED OVERALL BOUNDARY	07/21/11	

CHECKED BY: FWS 11/02/2008 | APPROVED BY: MRL 11/07/2008



PREPARED FOR:
AIRPORT CENTER DEVELOPMENT PARTNERS, LLC
CHATTANOOGA, TENNESSEE

PROJECT:
AIRPORT CENTER DEVELOPMENT
ALCOA, TENNESSEE

DRAWING TITLE:
REMEDIAL ACTION PLAN AREAS

FIGURE NO.
1-2

