

PROJECT MANUAL

For

Server Drive, Rostad Drive, and Felland Road
Reconstruction

Prepared For:

Town of Burke
5365 Reiner Road
Madison, WI 53718

Prepared by:

**Mead
& Hunt**

April 30, 2024
0207300-232611.01

TABLE OF CONTENTS

Document Number	Title	Number of Pages
00003	Table of Contents	1
00004	Specification Index	1
00030	Advertisement for Bids	1
00100	Instructions to Bidders	5
00300	Proposal	6
00400	Special Provisions	2
00410	Bid Bond	1
00500	Form of Contract	5
00510	Form of Notices	2
00520	Contract Change Order Form	1
00530	Certificate of Payment (Partial Payment Estimate)	1
00600	Form of Bond	4
00680	Settlement Certificate Forms	1
00690	Certificate of Substantial Completion	1
00700	General Conditions	72
00800	Supplementary General Conditions	2
00810	Wage Rates	1
	Specifications	Division 1, 31,32,33
	Borings	8

SPECIFICATION INDEX

Description	Pages
DIVISION 1 – GENERAL REQUIREMENTS	
01 00 00 – General Specifications	3
01 01 00 – Summary of Work	1
01 30 00 – Submittals	3
01 50 00 – Construction Facilities and Temporary Controls	1
DIVISION 31 – EARTHWORK	
31 13 14 – Asphalt Milling	2
31 23 13 – Earthwork	2
31 25 13 – Erosion Control	4
DIVISION 32 – SITE WORK	
32 11 16.19 – Breaker Run Subbase	4
32 11 23 – Base Course	5
32 12 16.13 – Hot Mix Asphalt Pavement	6
32 16 13.13 – Concrete	5
32 17 23 – Pavement Marking	3
32 92 00 – Landscape and Seeding	4

ADVERTISEMENT FOR BIDS
Server Drive, Rostad Drive, and Felland Road Reconstruction
Town of Burke
Madison, Wisconsin

Sealed bids will be received by the Town of Burke at 5365 Reiner Road, Madison, WI 53718, until **May 14, 2024 at 8:30 am CDT**. Bids may be dropped off at the Town Hall during lobby hours or may be mailed.

The project consists of the milling and repaving of Server Drive, Rostad Drive, and a portion of Felland Road. The project scope includes replacement of asphalt pavement, curb replacement, minor erosion control, signage, and pavement striping.

Contract documents may be obtained on May 30, 2024. Digital Documents are available through the Quest Construction Data Network (www.questcdn.com). You may download the digital Documents from Quest project 8389461 for a non-refundable fee of \$25. Please contact Quest at (952) 233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with this digital project information.

The OWNER reserves the right to accept or reject any bids which may be advantageous to the OWNER.

Before awarding the contract, the OWNER reserves the right to request proof of responsibility and qualifications, and a letter from the CONTRACTOR stating he or she is an equal opportunity employer.

No bid shall be withdrawn after the opening of bids without the consent of the OWNER for a period of ninety (90) days after the scheduled time of receiving bids.

Each bidder must deposit, with his bid, security in the amount of 5% of his bid in accordance with the conditions provided in the Instructions to Bidders.

Published by the authority of the Town of Burke.

By: PJ Lentz, Town Administrator

INSTRUCTIONS TO BIDDERS

Sealed bids will be received by the Town of Burke at 5365 Reiner Road, Madison, WI 53718, until May 14, 2024 at 8:30 am CDT, for construction of the proposed project, at which time and place all bids will be publicly opened and read aloud. Bids shall be addressed to the Town of Burke at 5365 Reiner Road, Madison, WI 53718, and shall be marked "Sealed Proposal, Server Drive, Rostad Drive, and Felland Road". The Town Hall will have a drop box available or sealed bids may be mailed.

The bids will be read aloud at the bid opening.

Bidders are requested to submit their bids in accordance with the following conditions.

PROPOSAL

All proposals are to be made on the forms herein provided. Prices are to be stated by the use of figures. Only proposals which are made out on the original forms attached hereto will be considered.

Bidders shall examine the plans, specifications and the locality in which the said work is to be done and judge for themselves all the circumstances and surrounding conditions affecting the cost and nature of the work. Failure on the part of any bidder to make such examination and to investigate the premises shall not be grounds for any declaration that bidder did not understand the conditions of this Proposal.

In case of conflict between a unit bid price and the corresponding total, or the absence of a total, the unit bid price shall govern.

DELIVERY OF BIDS

Each bid shall be placed in a sealed envelope. Envelopes shall be addressed to OWNER at the location indicated above, and are to be marked as shown in the Advertisement for Bids. Proposals will be received until the hour and date set for the opening thereof and must be by that time in the hands of the OWNER at the required location.

WITHDRAWAL OF BIDS

A bidder may withdraw his proposal, providing the request, in writing, is in the hands of the OWNER by the time set for opening proposals. When such a proposal is reached, it will be returned unopened to the bidder. No bids shall be withdrawn after the opening of bids for the period stated in the proposals.

REJECTION OF BIDS

The OWNER reserves the right to reject any or all bids or to waive any technicality and accept any bid which may be deemed to be in the best interests of the OWNER.

BASIS ON WHICH BIDS ARE REQUESTED

Bids are requested on the basis of unit and lump sum prices, which are clearly set forth in the Proposal and Specifications.

BASIS ON WHICH BIDS WILL BE EVALUATED

Bids will be evaluated on the basis of the sum of the base bid.

BID GUARANTEES

No proposal will be considered unless accompanied by a bid deposit in the amount stated in the Advertisement in the form of a Bid Bond, Certified Check or Bank Draft. All forms of bid guarantee shall be made payable to the OWNER.

The bid deposit of unsuccessful bidders will be returned following action by the OWNER on the award of contract and to successful bidder within 48 hours following execution of contract and bonds as required. In case the successful bidder fails to file such contract and bonds, the amount of his bid deposit shall be forfeited to the OWNER as liquidated damages.

BIDDER'S RESPONSIBILITY

Bidders are required to inform themselves of the conditions under which the work is to be performed and all other relevant matters concerning the work to be performed. The bidder, if awarded the contract, will not be allowed any extra compensation by reason of any matter or thing concerning which such bidder might have fully informed themselves because of their failure to have so informed themselves prior to the bidding.

INTERPRETATION OF CONTRACT DOCUMENTS

If the prospective bidder is in doubt as to the true meaning of any part of the specifications or other proposed contract document, he may submit to OWNER a written request for an interpretation thereof. Any interpretation of the proposed documents will be made only by an addendum duly issued.

REQUIREMENT FOR SIGNING BIDS

Bids which are not signed by individuals making them shall have attached thereto a power of attorney with authority to sign the bid in the name of the person for whom it is signed.

Bids which are signed for a partnership shall be signed by all of the partners or by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the bid a power of attorney extending authority to sign the bid, executed by the partners.

Bids signed for a corporation shall have the correct corporate name thereon and the signature of the president or authorized officer of the corporation manually written below the corporate name. Any bid manually signed by an official other than the president of the corporation shall have attached to it a certified copy of a resolution of the Board of Directors directing authority of such official to sign the bid. Such bid shall also bear the attesting signature of the secretary of the corporation and the impression of the corporate seal.

AWARD OF CONTRACT

Before award of any contract can be approved, the OWNER shall be satisfied that the bidder involved:

1. Maintains a permanent place of business
2. Had adequate plant equipment to do the work properly and expeditiously
3. Has a suitable financial status to meet obligations incident to the work
4. Has appropriate technical experience
5. Can submit a satisfactory performance record

The award, if made, will be made to a responsible bidder as recommended by the ENGINEER, subject to the decision of the OWNER.

WHEN AWARD EFFECTUAL

The Contract shall be deemed as having been awarded when formal notice of award shall have been duly served upon the awardee (i.e. the bidder to whom the OWNER intends awarding the contract) by an officer or agent of the OWNER duly authorized to give such notice.

NUMBER OF COPIES OF DOCUMENTS

There will be required three (3) executed counterparts of the Contract Documents, Performance Bond and Payment Bond.

BONDS

The successful bidder will be required to execute a Performance Bond and a Payment Bond, the penalty of which shall not be less than the contract price, on the form attached, with good and sufficient sureties satisfactory to the OWNER. The penal amounts of Performance Bond and the Payment Bond for any contract will be determined by the total base bid as stated in the Proposal and Contract.

1. The forms of Performance Bond and Payment Bond attached hereto shall be used.
2. The forms contemplate one corporate surety only. In case co-sureties or individual sureties will be furnished, proper forms therefore shall be obtained at the office of Mead & Hunt, Inc., Consulting Engineers.
3. Every bond must run to the OWNER.
4. The surety on the bonds shall be licensed to underwrite contracts in the State of Wisconsin and a certificate to that effect shall be attached to the bond.
5. If principal is an individual, his full legal name and residence shall be inserted in the body thereof, and he shall sign the bond with his usual signature on the line opposite the scroll seal.
6. If the principals are partners, their individual names shall appear in the body of the bond, with the recital that they are partners comprising a firm, naming it and all the members of the firm shall execute the bond as individuals.

7. The signature of a witness shall appear in the appropriate place attesting the signature of each individual party to the bond.
8. If the principal is a corporation, the name of the state in which incorporated shall be inserted in the appropriate place in the body of the bond and said instrument shall be executed and attested under the corporate seal as indicated on the form. If the corporation has no corporate seal, the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name. This also applies to execution by surety.
9. The date of the bond must not be prior to the date of the proposal for which it is given.
10. A power of attorney, authorizing execution of the bond by an attorney-in-fact or agent, shall be attached to one executed counterpart of the bond.
11. Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 amended) and be authorized to transact business in the state where the project is located.

STANDARD SPECIFICATIONS

Where standard specifications are referred to in these specifications, they shall become a part of these specifications as though incorporated herein.

TIME OF COMPLETION

See Proposal.

FAILURE TO COMPLETE WORK ON TIME

Should the CONTRACTOR fail to complete the work within the time agreed upon in the contract or within such extra time as may have been allowed by extension, there shall be deducted from any monies due or that may become due CONTRACTOR the sum set forth in the proposals for each and every calendar day, including Sundays and holiday, that the work shall remain uncompleted. This sum shall be considered and treated, not as a penalty, but as fixed, agreed upon and liquidated damages due to the OWNER from the CONTRACTOR by reason of inconvenience to the OWNER, added costs of engineering and supervision, maintenance of detours and other items which have caused and expenditure of OWNER's funds resulting from CONTRACTOR's failure to complete the work within the time specified in the contract:

Liquidated damages shall in no event be considered as a penalty or otherwise than as liquidated and adjusted damages of OWNER because of said delay and may be deducted and retained out of monies which may become due the CONTRACTOR.

ADDENDA AND INTERPRETATIONS

Oral interpretation of the meaning of plans, specifications or other contract documents made to any bidder will not be binding. **To be given consideration, such request must be received at least seven (7) days prior to the date fixed for opening bids and must be in writing to anne.anderson@meadhunt.com.** Any and all such interpretations and any supplemental instructions will be in the form of written Addenda which, if issued, will be sent by mail to all

prospective bidders at the respective addresses furnished by each bidder for such purpose, not later than three (3) days prior to the date fixed for opening of bids. All Addenda so issued shall become part of the Contract Documents.

CONSTRUCTION SCHEDULE

Immediately after execution and delivery of Contract and before first partial payment is made, CONTRACTOR shall coordinate his estimated construction progress schedules and shall assemble and incorporate schedules into a single schedule, which shall be delivered to ENGINEER.

NON-DISCRIMINATION IN EMPLOYMENT

The parties agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment or any matter directly or indirectly related to employment, because of race, color, national origin, age, sex, height, weight or marital status. Breach of this covenant may be regarded as material breach of this Agreement.

LIEN WAIVER

Upon satisfactory completion of the work and before final payment is made, the CONTRACTOR shall submit to the OWNER a Settlement Certification Form stating that all claims against the Project have been satisfied.

-- END OF SECTION --

PROPOSAL
Town of Burke, WI
Server Drive, Rostad Drive, and Felland Road Reconstruction

Bids will be received until **May 14, 2024** at 8:30am CDT.

To: Town of Burke
5365 Reiner Road
Madison, WI 53718

1. The undersigned, having familiarized themselves with the Contract Documents including Advertisement for Bids, Instructions to Bidders, Form of Proposal, General Conditions, Form of Contract, Form of Bond, Specifications, Addenda and Exhibits issued and attached to the specifications and hereby proposes to furnish all of the labor, materials, necessary tools, expendable equipment and all utility and transportation services necessary to perform and complete, in a workmanlike manner, all in accordance with the plans and specifications as prepared by Mead & Hunt, Inc., including addenda issued thereto.
2. The undersigned agrees to hold this proposal open for 90 days after the bid opening.
3. The following addenda have been received and are acknowledged in this bid.

Addendum No. _____ Date _____, 20____
Addendum No. _____ Date _____, 20____
Addendum No. _____ Date _____, 20____
Addendum No. _____ Date _____, 20____

The project shall be substantially complete in 60 consecutive calendar days and totally complete in 90 consecutive calendar days from start date with a completion date no later than September 1, 2023.

4. Liquidated Damages

The dollar amount for liquidated damages sustained by the Owner shall be as follows:

Substantial completion: 0.1% of the amount of the original contract or \$500 per day, whichever is greater.

Final completion: 0.1% of the amount of the original contract or \$500 per day, whichever is greater.

5. In the event that there is a conflict between the proposals and the specifications on the type of unit price, these proposals shall govern.
6. The Bidder agrees to perform all the work described in the Contract Documents for the following unit prices:

SCHEDULE OF PRICES
Town of Burke
Server Drive, Rostad Drive, and Felland Road Reconstruction

Item No.	Description	Est Qty	Unit Price	Total
Schedule 1 – Rostad Dr. and Server Dr. Pavement				
1.01	Mobilization	1	\$ _____ /LS	\$ _____
1.02	Traffic Control, Including Signing and Flagging	1	\$ _____ /LS	\$ _____
1.03	Asphalt Mill and Remove	4,520	\$ _____ /SY	\$ _____
1.04	Remove Concrete Pavement	164	\$ _____ /SY	\$ _____
1.05	Remove Curb	814	\$ _____ /LF	\$ _____
1.06	Remove Driveway Pavement	540	\$ _____ /SF	\$ _____
1.07	Re-Shape Roadway	1	\$ _____ /LS	\$ _____
1.08	Undercut (Approval Required)	316	\$ _____ /CY	\$ _____
1.09	Type SAS geotextile fabric (approval required)	316	\$ _____ /SY	\$ _____
1.10	Breaker Run Subbase (Approval Required)	316	\$ _____ /CY	\$ _____
1.11	Driveway Asphalt Pavement	3	\$ _____ /TON	\$ _____
1.12	Crushed Aggregate Base Course	250	\$ _____ /TON	\$ _____
1.13	Binder Course Asphalt (3") 145 pcf	770	\$ _____ /TON	\$ _____
1.14	Surface Course Asphalt (2.5") 145 pcf	650	\$ _____ /TON	\$ _____
1.15	Adjust Manhole Rim Elevation	4	\$ _____ /EACH	\$ _____
1.16	RegROUT Storm Pipe Connections	11	\$ _____ /EACH	\$ _____
1.17	Concrete Driveway Replace (6")	336	\$ _____ /SF	\$ _____
1.18	Concrete Curb Replace	870	\$ _____ /LF	\$ _____
SCHEDULE 1 TOTAL				\$ _____

Item No.	Description	Est Qty	Unit Price	Total
Schedule 2 – Drainage & Erosion Control				
2.01	Salvaged or Supplemental Topsoil	174	\$ _____ /SY	\$ _____
2.02	Common Excavation	58	\$ _____ /CY	\$ _____
2.03	Erosion Mat, Class II, Type B	174	\$ _____ /SY	\$ _____
2.04	Seed & Fertilize All Restoration	174	\$ _____ /SY	\$ _____
2.05	Inlet Protection	16	\$ _____ /EACH	\$ _____
SCHEDULE 2 SUBTOTAL				\$ _____

Item No.	Description	Est Qty	Unit Price	Total
Schedule 3 – Signage & Marking				
3.01	Curb Marking Epoxy – Yellow	125	\$ _____ /LF	\$ _____
3.02	Pavement Marking 18" Epoxy Stop Line	65	\$ _____ /LF	\$ _____
3.03	Centerline Marking 4" Epoxy – Yellow	970	\$ _____ /LF	\$ _____
3.04	Signs (Approval Required)	1	\$ _____ /EACH	\$ _____
3.05	Sign Posts 4x6-Inch x 16' (Approval Required)	1	\$ _____ /EACH	\$ _____
SCHEDULE 3 SUBTOTAL				\$ _____

Item No.	Description	Est Qty	Unit Price	Total
Schedule 4 – Felland Rd. Paving				
4.01	Mobilization	1	\$ _____ /LS	\$ _____
4.02	Traffic Control, Including Signing and Flagging	1	\$ _____ /LS	\$ _____
4.03	Asphalt Mill and Remove (1.5" Mill)	96	\$ _____ /SY	\$ _____
4.04	Sawcut Driveway	754	\$ _____ /SF	\$ _____
4.05	Base Course Gravel Shouldering (4" depth)	4940	\$ _____ /LF	\$ _____
4.06	Surface Course Asphalt (1.5")	564	\$ _____ /TON	\$ _____
4.07	Centerline Marking 4" Epoxy – Yellow	2470	\$ _____ /LF	\$ _____
4.08	Pavement Marking 4" Epoxy – Road Edge	4940	\$ _____ /LF	\$ _____
4.09	Pavement Marking RR	1	\$ _____ /EACH	\$ _____
4.10	Stop Line	24	\$ _____ /LF	\$ _____
SCHEDULE 4 SUBTOTAL				\$ _____

SCHEDULES 1, 2, 3 & 4 TOTAL

\$ _____

Contractor shall list all subcontractors including the name, address, telephone number, contact person, description of work and dollar value of work.

Subcontractor

Name: _____

Address: _____

Contact: _____ Telephone: _____

Description: _____ Amount: \$ _____

Subcontractor

Name: _____

Address: _____

Contact: _____ Telephone: _____

Description: _____ Amount: \$ _____

Subcontractor

Name: _____

Address: _____

Contact: _____ Telephone: _____

Description: _____ Amount: \$ _____

Subcontractor

Name: _____

Address: _____

Contact: _____ Telephone: _____

Description: _____ Amount: \$ _____

The Owner reserves the right to accept or reject any subcontractor.

7. Accompanying this Proposal is _____
(certified check, bond, bank draft)

in the amount of _____ dollars (\$ _____),
as required by the Advertisement for Bids.

8. I hereby certify that all statements herein are made on behalf of _____

(name & address of corporation, partnership or person submitting same)

a corporation organized and existing under the laws of the State of _____; a partnership
consisting of _____; an individual trading as _____
_____, State of _____; that I
have examined and carefully prepared this Proposal from the plans and specifications and have
checked the same in detail before submitting this Proposal; that I have full authority to make
such statements and submit this Proposal in (its)(their) behalf; and that the said statements are
true and correct.

Signature: _____

Title: _____

Sworn & subscribed to before
me this _____ day of _____, 20____.

Notary Public or other officer
authorized to administer oaths.

My commission expires _____

NOTE: Bidders should not add any conditions or qualifying statements to the Proposal, as
otherwise the Proposal may be declared irregular as being not responsive to the Advertisement.

SPECIAL PROVISIONS

Server Drive, Rostad Drive, and Felland Road Reconstruction Town of Burke, WI

This section contains an explanation of bid items contained in this bid proposal and supersedes the standard specifications if conflicts arise. All specifications not amended or supplemented shall stand as stated.

The Contractor shall attend a pre-construction meeting with the Engineer and representatives from the Town of Burke prior to initiating work on the project. The contractor shall provide a construction schedule, a list of contact telephone numbers for themselves and all sub-contractors prior to the meeting.

The Contractor shall maintain an updated construction schedule throughout the project and provide a copy of the updated schedule to the Engineer. The Contractor shall provide a representative to inform residents of the anticipated schedule for temporary interruptions in driveway access to their property based on the regularly updated construction schedule. The Contractor shall provide a minimum 48-hours' notice prior to access interruption. The Owner will assist in contacting residents, but the Contractor shall coordinate this effort.

All items designated for removal or disposal shall be disposed of by the Contractor at a location provided by the Contractor in accordance with local, state, and federal requirements.

Any work under the following bid items must be direct by and approved by the Engineer's Representative:

- Undercut, Breaker run subbase, Geotextile fabric, sign, sign post
- Quantities above estimated amounts for other bid items

Specials:

Bid Items 1.01 and 4.01 – Mobilization will consist of preparing the project site for construction, including getting the materials and machinery needed on site for the project. Mobilization shall be measured per lump sum.

Bid Item 1.04 – Remove Concrete Pavement will consist of removing the concrete pavement section on Server Drive. Removal will be paid for by the square yard.

Bid Item 1.05 – Remove Curb will consist of removing the curb sections of Server Drive and Rostad Drive that are damaged. Removal will be paid for by the linear foot.

Bid Item 1.06 – Remove Driveway Pavement will consist of removing the driveway entrances along Server Drive and Rostad Drive that need to be replaced. Removal will be paid for by the square foot.

Bid Item 1.07 – Re-Shape Roadway shall consist of shaping of crushed aggregate base course and compaction prior to paving and shall be measured and paid for per lump sum.

Bid Item 3.01 – Curb Marking Epoxy – Yellow will consist of replacing the curb markings along Server Drive and Rostad Drive in front of hydrants where shown on plans. Marking will be paid for by the linear foot.

Bid Item 3.03 – Signs shall be installed as shown on the plans and paid for by each sign acceptably installed. Payment for the signs bid item is full compensation for providing signs including mounting hardware. Sign material shall follow WisDOT Standard Specifications Section 637 Signing. Use type H reflective sheeting. Road name signs noted on the plans will be provided by the Town of Burke, the remaining signs must be provided. Contact the Town of Burke 2 weeks prior to sign installation to arrange pickup of signs.

Bid Item 3.04 – Sign Posts 4x6-Inch x 16' shall be paid for by each post acceptably installed. Payment for the sign posts is full compensation for providing, hauling, and placing the posts; for excavating and backfilling post holes; and for removing and disposing of surplus material. Installation and materials shall follow WisDOT Standard Specifications Section 634 Wood and Tubular Steel Sign Posts. Install wood posts.

Bid Item 4.04 – Sawcut Driveway and Remove Pavement will consist of removing driveway pavement near the edge of the road pavement and will be paid for by the square foot of pavement removed. Two saw cuts shall be made, one at the interface with the roadway pavement and one cut 6-inches from the original cut. Remove pavement between the saw cuts. Pave with material that matches existing driveway type.

BID BOND

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

Signed, this _____ day of _____, 20____.

The Condition of the above obligation is such that whereas the Principal has submitted to _____
_____ a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing,
for the _____

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal 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 his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect, it being expressly understood that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

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

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

Principal

Surety

By: _____

IMPORTANT – Surety companies executing BONDS must appear on the Treasury Department’s most current list (Circular 570 amended) and be authorized to transact business in the state where the project is located.

CONTRACT

This AGREEMENT is dated as the _____ day of _____, in the year 2024 by and between the Town of Burke (hereinafter called the OWNER) and ____ (hereinafter called the CONTRACTOR).

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

Article 1. WORK

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

1. Traffic control
2. Pavement milling
3. Curb replacement
4. Minor landscaping
5. Pavement marking
6. Asphalt paving

Article 2. ENGINEER

The Project has been designed by Mead & Hunt, Inc., hereinafter called the ENGINEER, who will assume such duties and responsibilities and will have the rights and authority assigned to the ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME

3.1 The Work will be completed as follows:

The project shall be substantially complete in 60 consecutive calendar days and totally complete in 90 consecutive calendar days from start date with a completion date no later than August 15, 2024.

3.2 Liquidated Damages. The OWNER and the CONTRACTOR recognize that the OWNER will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in providing in a legal or arbitration proceeding the actual loss suffered by the OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, the OWNER and CONTRACTOR agree that as liquidated damages for delay (but not a penalty) the CONTRACTOR shall pay the OWNER a daily charge of 0.1% or \$500, whichever is greater, for each day that expires after the time specified in paragraph 3.1 for substantial or final completion until the Work is complete.

Article 4. CONTRACT PRICE

4.1 The OWNER shall pay the CONTRACTOR for performance of the Work in accordance with the Contract Documents and the Contract Drawings in the amount of _____ the said amount being the Contract price as stated in the Proposal.

Article 5. PAYMENT PROCEDURES

The CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by the ENGINEER as provided in the General Conditions. Application for payment shall be made on the forms provided.

5.1 Progress Payments. The OWNER shall make progress payments on account of the Contract Price on the basis of the CONTRACTOR's Applications for Payment as recommended by the ENGINEER, on or about the **1st day of each month** during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 14.1 of the General Conditions.

5.1.1 Payment Prior to Substantial Completion. Progress payments will be in an amount equal to:

95% of the Work completed, and

95% of materials and equipment not incorporated in the Work but delivered and suitably stored less in each case the aggregate of payments previously made.

5.1.2 Payment upon Substantial Completion. The OWNER shall pay an amount sufficient to increase total payments to the CONTRACTOR to 97.5% of the Contract Price, less such amounts as the ENGINEER shall determine in accordance with paragraph 14.7 of the General Conditions.

5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, the OWNER shall pay the remainder of the Contract Price as recommended by the ENGINEER as provided in said paragraph 14.13.

Article 6. INTEREST

All moneys not paid when due hereunder shall bear interest at the maximum rate allowed by law at the place of the Project.

Article 7. CONTRACTOR'S REPRESENTATIONS

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

7.1 The CONTRACTOR has familiarized themselves with the nature and extent of the Contract Documents, Work, locality and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect costs, progress or performance of the Work.

7.2 The CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by the ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.

- 7.3 The CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 7.4 The CONTRACTOR has given the ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by the ENGINEER is acceptable to the CONTRACTOR.
- 7.5 The CONTRACTOR shall provide a warranty period of two (2) years after the date of substantial completion.

Article 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between the OWNER and the CONTRACTOR are attached to this Agreement, made a part hereof and consist of the following:

- 8.1 This Agreement (pages 00500-1 to 00500-5 inclusive).
- 8.2 Performance and other Bonds consisting of five (5) pages, Standard Forms as included herein, to be filled out and returned to the OWNER within ten (10) days of signing this Agreement.
- 8.3 Notice of Award (page 00510-1).
- 8.4 General Conditions (pages 1 to 65 inclusive).
- 8.5 Supplementary General Conditions (pages 00800-1 to 00800-2 inclusive). Wage rates (page 00810-1)
- 8.6 Exhibits to this Agreement consisting of the following: None
- 8.7 Drawings and Technical Specifications consisting of sheets numbered as follows with the following general title:

Drawings: Plan set for Server Drive, Rostad Drive, and Felland Road, Town of Burke, Pages G-001, G-002, C-021, C-011, C-041, C-101, C-102, C-103, C-104, C-201, C-202, C-501

Technical Specifications: Division 1, Division 31, Division 32, Soil Borings, and Special Provisions.

- 8.8 Any addenda issued during bidding.
- 8.9 The CONTRACTOR's Bid (Pages 00300-1 to 00300-6 inclusive).
- 8.10 Documentation submitted by the CONTRACTOR prior to Notice of Award: Bid Bond in the amount of 5% of amount of bid.
- 8.11 Any modification, including Change Orders, duly delivered after execution of Agreement.

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be altered, amended or repealed by a modification (as defined in Section 1 of the General Conditions).

Article 9. MISCELLANEOUS

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and, unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 The OWNER and the CONTRACTOR each binds themselves, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

Article 10. OTHER PROVISIONS

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

This Agreement will be effective on _____, .

OWNER: _____

CONTRACTOR: _____

By: _____

By: _____

[corporate seal]

[corporate seal]

Attest: _____

Attest: _____

Address for giving notices

Address for giving notices

[If the OWNER is a public body attach evidence of authority to sign and resolution or other document authorizing execution of the Agreement]

License No.: _____

Agent for service of process

NOTICE OF AWARD

To:

Project Description: Server Drive, Rostad Drive, and Felland Road Reconstruction

The OWNER has considered the BID submitted by you for the above-described work in response to its Advertisement for Bids and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of

\$_____.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR's Performance Bond, Payment Bond and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said bonds within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this _____ day of _____, 2024.

Town of Burke (OWNER)
Madison, Wisconsin

By: _____ PJ Lentz _____

Title: _____ Town Administrator _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____

This _____ day of _____, 2022.

By: _____

Title: _____

NOTICE TO PROCEED

To:

Project: Server Drive, Rostad Drive, and Felland Road Reconstruction

You are hereby notified to commence work in accordance with the Agreement dated _____ and you are to complete the work by _____ for the Town of Burke, Server Drive, Rostad Drive, and Felland Road Reconstruction.

Signature: _____
Printed Name: _____
Title: _____
Town of Burke, Wisconsin

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____

This _____ day of _____, 20____.

By: _____

Title: _____

CONTRACT CHANGE ORDER FORM

Change Order No:

Date:

Project:

Project No:

Owner:

Contractor:

Description of Work Added or Deducted:

Reason for Change:

The original Contract sum was	\$
Net change by previous Change Orders	\$
Contract sum prior to this Change Order was	\$
Contract sum will be increased/decreased/unchanged by this Change Order	\$
New Contract sum, including this Change Order, will be	\$
Contract time will be increased/decreased/unchanged by <input type="text"/> days	
Therefore, the date of completion as of this Change Order is	

RECOMMENDED BY: MEAD & HUNT, INC.

By: _____ Date _____

ACCEPTED BY:

By: _____ Date _____

APPROVED BY:

By: _____ Date _____

PARTIAL PAYMENT ESTIMATE

CONTRACTOR MAY SUBMIT ON OWN FORM. THE PAY REQUEST MUST INCLUDE:

- DATE
- PAY REQUEST NUMBER
- LIST OF BID ITEMS
- LIST OF QUANTITY REQUESTED CURRENT PAY REQUEST
- LIST OF PREVIOUSLY REQUESTED PAYMENT
- TOTAL PAYMENT REQUESTED PER BID ITEM
- TOTAL AMOUNT REQUESTED
- SIGNATURE PAGE

*Show Original Items and Change Orders Separately.

CERTIFICATION OF CONTRACTOR – I HEREBY CERTIFY that the work performed and the materials supplied to date, as shown on this periodic cost estimate, represent the actual value of accomplishment under the terms of this contract in conformity with approved plans and specifications; that the quantities shown were properly determined and are correct; and there has been full compliance with all labor provisions included in the contract identified above and in all subcontracts made under that contract.

CONTRACTOR: _____

DATE: _____

By: _____

Title: _____

RECOMMENDED FOR PAYMENT BY ENGINEER MEAD & HUNT, INC.

DATE: _____

By: _____

Title: _____

APPROVED FOR PAYMENT BY OWNER

OWNER: Town of Burke

DATE: _____

By: _____

Title: _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____
as Principal, and _____
as Surety, are held and firmly bound unto _____, hereinafter called the OWNER, in the penal
sum of _____ lawful money of the United States, for the payment of
which sum well and truly to be made we bind ourselves, our heirs, executors, administrators,
successors and assigns, jointly and severally firmly by these presents.

The condition of the obligation is such that whereas the Principal has executed the attached
contract dated _____ for _____.

NOW, THEREFORE, if the Principal shall:

1. Well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extensions thereof that may be granted by the OWNER, with or without notice to the Surety, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived; and
2. Promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said Contract, and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived; then this obligation to be void, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals this ____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

IN THE PRESENCE OF:

INDIVIDUAL PRINCIPAL:

_____[SEAL]
_____[SEAL]
_____[SEAL]

CORPORATE PRINCIPAL

(business address)

(affix corporate seal)

Attest: _____

By: _____

CORPORATE SURETY:

(business address)

(affix corporate seal)

By: _____

Title: _____

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that _____
whose address is _____
a corporation/partnership/individual, hereinafter called the PRINCIPAL, and _____
hereinafter called the SURETY, are held and firmly bound unto the _____
hereinafter called the OWNER, in the penal sum of _____
(\$_____) in lawful money of the United States, for the payment of which sum well
and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by
these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the PRINCIPAL 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 _____.

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment of 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 for 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.

PROVIDE FURTHER that the said SURETY for value received hereby stipulates and agrees
that no change, extension of time, alteration or addition to the terms of the contract or to the
work to be performed thereunder or the specifications accompanying the same shall in any way
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.

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

IN WITNESS WHEREOF, the above bounden parties have executed this instrument in _____ counterparts, each one of which shall be deemed an original, under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

IN THE PRESENCE OF:

INDIVIDUAL PRINCIPAL:

_____ [SEAL]

_____ [SEAL]

_____ [SEAL]

CORPORATE PRINCIPAL

(business address)

(affix corporate seal)

Attest: _____

By: _____

CORPORATE SURETY:

(business address)

(affix corporate seal)

By: _____

Title: _____

NOTE: Date of Bond must not be prior to date of Contract. If CONTRACTOR is a partnership, all partners should execute the Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

SETTLEMENT CERTIFICATION FORM
Submit with Final Payment Request

Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562

Attention: Anne Anderson, Project Manager

Reference: Server Drive, Rostad Drive, and Felland Road Reconstruction

Town of Burke
Town of Burke, Wisconsin

CERTIFICATION

The undersigned hereby certifies that all debts and claims against the referenced contract for this project have either been paid in full or have otherwise been satisfied. The acceptance of final payment for the referenced contract by the undersigned shall constitute a waiver of all claims by this CONTRACTOR.

Signature

Title: _____

Firm Name: _____

Sworn & subscribed to before
me this _____ day of _____, 20____.

Notary Public or other officer
authorized to administer oaths.

My commission expires _____

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project Name: Server Drive, Rostad Drive, and Felland Road Reconstruction

Owner: Town of Burke

Contractor:

Engineer: Mead & Hunt, Inc.

The work under this contract has been completed sufficiently to be considered ready for its intended use, therefore; the date of substantial completion has been established as _____
_____. This date defines the beginning of the warranty period, and the date in which the OWNER may occupy and use the facility.

This certification does not release the CONTRACTOR from correcting or completing any unfinished items necessary to reach final completion.

Recommended by Engineer: _____
date

Accepted by Owner: _____
date

Accepted by Contractor: _____
date

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



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology	1
1.01 Defined Terms	1
1.02 Terminology	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents	6
2.03 Before Starting Construction	6
2.04 Preconstruction Conference; Designation of Authorized Representatives	7
2.05 Initial Acceptance of Schedules	7
2.06 Electronic Transmittals.....	7
Article 3 – Documents: Intent, Requirements, Reuse	8
3.01 Intent.....	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	8
3.04 Requirements of the Contract Documents	9
3.05 Reuse of Documents	10
Article 4 – Commencement and Progress of the Work.....	10
4.01 Commencement of Contract Times; Notice to Proceed	10
4.02 Starting the Work.....	10
4.03 Reference Points	10
4.04 Progress Schedule	10
4.05 Delays in Contractor’s Progress	11
Article 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions	12
5.01 Availability of Lands	12
5.02 Use of Site and Other Areas	12
5.03 Subsurface and Physical Conditions.....	13
5.04 Differing Subsurface or Physical Conditions	14
5.05 Underground Facilities	15

5.06	Hazardous Environmental Conditions at Site.....	17
Article 6 – Bonds and Insurance		19
6.01	Performance, Payment, and Other Bonds	19
6.02	Insurance—General Provisions	19
6.03	Contractor’s Insurance	20
6.04	Owner’s Liability Insurance	23
6.05	Property Insurance.....	23
6.06	Waiver of Rights	25
6.07	Receipt and Application of Property Insurance Proceeds	25
Article 7 – Contractor’s Responsibilities		26
7.01	Supervision and Superintendence	26
7.02	Labor; Working Hours	26
7.03	Services, Materials, and Equipment.....	26
7.04	“Or Equals”	27
7.05	Substitutes	28
7.06	Concerning Subcontractors, Suppliers, and Others	29
7.07	Patent Fees and Royalties	31
7.08	Permits	31
7.09	Taxes	32
7.10	Laws and Regulations.....	32
7.11	Record Documents	32
7.12	Safety and Protection.....	32
7.13	Safety Representative	33
7.14	Hazard Communication Programs	33
7.15	Emergencies	34
7.16	Shop Drawings, Samples, and Other Submittals.....	34
7.17	Contractor’s General Warranty and Guarantee.....	36
7.18	Indemnification	37
7.19	Delegation of Professional Design Services	37
Article 8 – Other Work at the Site		38
8.01	Other Work	38
8.02	Coordination	39
8.03	Legal Relationships.....	39

Article 9 – Owner’s Responsibilities.....	40
9.01 Communications to Contractor.....	40
9.02 Replacement of Engineer	40
9.03 Furnish Data	40
9.04 Pay When Due.....	40
9.05 Lands and Easements; Reports, Tests, and Drawings	40
9.06 Insurance	40
9.07 Change Orders.....	40
9.08 Inspections, Tests, and Approvals.....	41
9.09 Limitations on Owner’s Responsibilities	41
9.10 Undisclosed Hazardous Environmental Condition.....	41
9.11 Evidence of Financial Arrangements.....	41
9.12 Safety Programs	41
Article 10 – Engineer’s Status During Construction.....	41
10.01 Owner’s Representative.....	41
10.02 Visits to Site.....	41
10.03 Project Representative.....	42
10.04 Rejecting Defective Work.....	42
10.05 Shop Drawings, Change Orders and Payments.....	42
10.06 Determinations for Unit Price Work	42
10.07 Decisions on Requirements of Contract Documents and Acceptability of Work	42
10.08 Limitations on Engineer’s Authority and Responsibilities.....	42
10.09 Compliance with Safety Program.....	43
Article 11 – Amending the Contract Documents; Changes in the Work	43
11.01 Amending and Supplementing Contract Documents	43
11.02 Owner-Authorized Changes in the Work	44
11.03 Unauthorized Changes in the Work	44
11.04 Change of Contract Price	44
11.05 Change of Contract Times	45
11.06 Change Proposals	45
11.07 Execution of Change Orders.....	46
11.08 Notification to Surety.....	47
Article 12 – Claims.....	47

12.01	Claims	47
Article 13 –	Cost of the Work; Allowances; Unit Price Work.....	48
13.01	Cost of the Work	48
13.02	Allowances	50
13.03	Unit Price Work	51
Article 14 –	Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....	52
14.01	Access to Work.....	52
14.02	Tests, Inspections, and Approvals	52
14.03	Defective Work.....	53
14.04	Acceptance of Defective Work.....	53
14.05	Uncovering Work	53
14.06	Owner May Stop the Work	54
14.07	Owner May Correct Defective Work.....	54
Article 15 –	Payments to Contractor; Set-Offs; Completion; Correction Period	55
15.01	Progress Payments	55
15.02	Contractor’s Warranty of Title	58
15.03	Substantial Completion	58
15.04	Partial Use or Occupancy	59
15.05	Final Inspection	59
15.06	Final Payment.....	59
15.07	Waiver of Claims	61
15.08	Correction Period	61
Article 16 –	Suspension of Work and Termination	62
16.01	Owner May Suspend Work	62
16.02	Owner May Terminate for Cause	62
16.03	Owner May Terminate For Convenience	63
16.04	Contractor May Stop Work or Terminate	63
Article 17 –	Final Resolution of Disputes	64
17.01	Methods and Procedures	64
Article 18 –	Miscellaneous	64
18.01	Giving Notice	64
18.02	Computation of Times.....	64
18.03	Cumulative Remedies	64

18.04	Limitation of Damages	65
18.05	No Waiver	65
18.06	Survival of Obligations	65
18.07	Controlling Law	65
18.08	Headings.....	65

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

has declined to address. A demand for money or services by a third party is not a Claim.

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

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

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

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

1.02 Terminology

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

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

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

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

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

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

2.05 *Initial Acceptance of Schedules*

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

2.06 *Electronic Transmittals*

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

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

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

3.02 *Reference Standards*

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

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

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

B. *Resolving Discrepancies:*

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

3.04 *Requirements of the Contract Documents*

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

3.05 *Reuse of Documents*

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

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

4.02 *Starting the Work*

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

4.03 *Reference Points*

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

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

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

5.01 *Availability of Lands*

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

5.02 *Use of Site and Other Areas*

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

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

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

5.03 *Subsurface and Physical Conditions*

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

5.04 *Differing Subsurface or Physical Conditions*

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

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

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

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

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

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

6.02 *Insurance—General Provisions*

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

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

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

6.03 *Contractor's Insurance*

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

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

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

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

6.04 *Owner's Liability Insurance*

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

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

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

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
 - C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
 - D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
 - E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
 - F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

- O. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

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

7.08 *Permits*

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

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

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

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

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

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

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

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

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

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

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

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

E. *Resubmittal Procedures:*

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

7.17 *Contractor's General Warranty and Guarantee*

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

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

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

8.02 *Coordination*

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

8.03 *Legal Relationships*

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

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 Communications to Contractor

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

9.02 Replacement of Engineer

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

9.03 Furnish Data

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

9.04 Pay When Due

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

9.05 Lands and Easements; Reports, Tests, and Drawings

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

9.06 Insurance

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

9.07 Change Orders

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

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

9.12 *Safety Programs*

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

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

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

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

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

10.04 *Rejecting Defective Work*

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

10.05 *Shop Drawings, Change Orders and Payments*

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

10.06 *Determinations for Unit Price Work*

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

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

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

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

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

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

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

11.02 *Owner-Authorized Changes in the Work*

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

11.03 *Unauthorized Changes in the Work*

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

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

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

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

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

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

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

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

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

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

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

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

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

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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

14.01 *Access to Work*

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

14.02 *Tests, Inspections, and Approvals*

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

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

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

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

14.04 *Acceptance of Defective Work*

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

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

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

14.06 *Owner May Stop the Work*

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

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

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

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

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

15.03 *Substantial Completion*

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

- 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.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

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

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

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

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

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

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

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

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

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

16.04 *Contractor May Stop Work or Terminate*

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

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

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

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

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

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

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

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Headings*

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

SUPPLEMENTARY GENERAL CONDITIONS

These Supplementary General Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC No. C-700, 2013 edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

SC-2.02.A. Amend the first sentence of Paragraph 5.03

.A. to read as follows:

Owner shall furnish to Contractor 3 copies of the Contract Documents (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.B:

- C. The following plans and reports of explorations and tests of subsurface conditions at or adjacent to the Site are known to Owner:
 - 1. Geotechnical Report dated: 5-8-2011
- D. The following drawings of physical conditions relating to existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities) are known to Owner:
 - 1. None.

SC-6.03

The limits of liability for the insurance required by paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law.

- A. Worker's Compensation
 - 1. State: Statutory
 - 2. Federal (e.g. Longshoreman's and Harbor Workers Act, Jones Act or Admiralty Act): As Applicable
 - 3. Policy shall have other states coverage
- B. Employer's Liability
 - 1. Each Accident \$100,000.00
 - 2. Policy Limit \$500,000.00
 - 3. Each Employee \$100,000.00
- C. Commercial General Liability including:
 - 1. Personal Injury
 - 2. Blanket Contact Liability
 - 3. Premises – Operations
 - 4. Products an Completed Operations
 - 5. Broad Form Property Damage
 - 6. Independent Contractors Protective Liability
 - 7. Explosion, Collapse and Underground Coverage (when applicable)

- 8. Non-Owned Watercraft Liability (when applicable)
- 9. The General Aggregate per project endorsement must be included
- 10. Limits

a. General Aggregate	\$2,000,000.00
b. Product – Comp/ops Aggregate	\$2,000,000.00
c. Personal and Advertising Injury	\$1,000,000.00
d. Each Occurrence	\$1,000,000.00
e. Fire Damage (any one fire)	\$50,000.00
f. Medical Expense (any one person)	\$5,000.00

- D. Business Automobile Liability including Contractual Liability:
 - 1. Owned, Hired and Non-Owned Vehicles (combined single limit): \$1,000,000.00
- E. The Contractor shall provide an Umbrella Liability Policy of Two Million Dollars (\$2,000,000.00)
- F. The Contractor shall include the Owner and Engineer by endorsement as additional insured on the Contractor’s General Liability Policy as respects to this project.

SC-6.05 Omit this section.

SC-7.09 Taxes
 Contractor shall not pay taxes on goods purchased in Wisconsin for this project per State Statute 77.54 (9m).

7.12.B.1 All Contractor and subcontractors engaging in work on this contract shall be responsible for notification to utility owners in accordance with Wisconsin Statutes for locations of utilities shall be requested a minimum of three (3) working days prior to beginning work.

7.12.B.2 Contractor shall protect property monument from movement. The cost of restoring any monuments moved or destroyed shall be assessed to the Contractor.

SC-11.02
 Add the following to Article 11.02:

11.02.A.1 The Owner reserves the right to increase or decrease the quantity of construction required by the original price by 15% of the original contract price.

SC-17.01
 Arbitration between the Owner and Contractor may only occur through mutual consent.

WAGE RATES

There are no prevailing wages on this project.

01 00 00 - GENERAL SPECIFICATIONS

PART 1 - GENERAL

1.1 CONTRACT DRAWINGS

- A. Location of the work, together with details for construction is as shown on the drawings. These drawings, together with the specifications, form a part of the contract.
- B. Where figures are shown on drawings, they shall take precedence over scaled distances and dimensions. In the event of any discrepancy between plans and these specifications, interpretation of the Engineer shall be decisive thereon. Figured dimensions on plans are to be taken as correct, but Contractors are required to check carefully all dimensions before beginning work thereon. Should errors be discovered, the Engineer's attention shall be called to same and proper corrections made. All notes on plans shall be fully observed by the Contractor and are a part of the Contract.
- C. After award of contract but before fabrication of materials, and in ample time to permit satisfactory progress of the work, Contractors or manufacturers shall submit to the Engineer for approval drawings and/or schedules required for the work, in such detail as may be necessary for the Engineer to inform himself/herself of design and character of the various materials which the Contractor proposes to use. Upon approval of drawings, lists, prints, samples and other data, same shall become a part of contract and materials furnished shall be in conformance with this data.
- D. Approval of drawings, lists, prints, samples and other data shall become a part of the contract and materials furnished shall be in conformance with this data. Approval of these drawings, lists, samples and other data shall in no way release the Contractor from responsibility for proper fulfillment of requirements of this contract nor from his liability to replace materials should they prove defective or fail to meet specified requirements.

1.2 CONTOURS OR PROFILES

- A. Elevations of ground surface are shown on the plans, on a limited basis.
- B. This data is believed to be reasonably correct but is not a guarantee to be absolutely so and, together with any schedule or quantities, is presented only as an approximation.

1.3 LINES AND GRADES

- A. Elevation and location staking will be provided by the Engineer at culvert locations, road C/L, ditch F/L, bridge, beam guard and curb as necessary.

1.4 BOUNDARIES OF WORK

- A. The Owner will acquire ownership, easement or permit for occupation of properties on which the work is to be constructed and the Contractor shall not enter or occupy with persons, tools, equipment or materials any private ground outside these limits without consent of the property owner.

- B. Other contractors of the Owner may, for all purposes required by their contracts, enter upon the work and premises used by the Contractor. The Contractor shall give to other contractors of the Owner all reasonable facilities and assistance for completion of adjoining work.
- C. All work done shall be in compliance with any applicable permit requirements.

1.5 BID ITEMS

- A. The Contractor shall bid on construction of work under this contract on the basis of unit price and lump sum items as stated in the Proposal. Where unit prices are requested, quantities are subject to variation and final payment will be made on an agreed quantity if different than as stated in specifications. Quantities for bid items which constitute completed work will be measured for payment according to provisions for those items and in terms of unit provided for such items.
- B. All work included but not listed as bid items shall be considered as work incidental and subsidiary to the several bid items and will not be measured for payment.

1.6 CLEANING UP

- A. Upon completion of his work, the Contractor shall repair or replace all improvements disturbed by construction work.
- B. All surplus materials, tools, equipment and all surplus earth shall be removed and the premises left free of everything and in the condition it existed before operations commenced, or in its completed condition as planned and specified.

1.7 PROTECTION OF PROPERTY IRONS

- A. The Contractor shall be responsible for the protection of all property irons and monuments.
- B. In the event any irons or monuments are disturbed, the Contractor shall obtain the service of a registered surveyor to replace the irons or monuments at the Contractor's expense.
- C. If the Contractor fails to replace disturbed irons and monuments, the Owner reserves the right to have this work done and deduct the cost from the project's final payment.

1.8 RECORD PRIOR TO CONSTRUCTION

- A. The Contractor shall record the project route or site condition prior to any construction taking place by videotape, photos or a combination.
- B. Attention shall be given to features which will need to be restored after construction and shall include but not be limited to:
 - 1. Landscape structures.
 - 2. Trees, shrubbery and lawns.
 - 3. Condition of paving, curb and gutter, sidewalks and driveways.

4. Signs, mailboxes and fences.
 5. Culverts, end sections and topographic drainage features.
- C. A narrative shall be supplied identifying the location of the features.
- D. Provide the original to the Engineer's Representative.

1.9 MEASUREMENT AND PAYMENT

- A. Measurement: Bid items which will be measured for payment are listed in Proposal. All work included but not listed as bid items shall be considered as work incidental and subsidiary to the several bid items and will not be measured for payment.
- B. Payment: Unit prices bid shall be considered compensation in full for all material, labor, equipment and appurtenances required to complete the work and shall include all materials, excavation, pipe laying, concrete construction, backfilling, pavement construction and markings, signage, erosion control compliance, bridge/culvert installation, restoration of surfaces, and final cleanup and removal of excess materials.

END OF SECTION

01 01 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 CONTRACTS

- A. Work under this contract shall be performed as a single prime contract and shall be identified as: Server Drive, Rostad Drive, and Felland Road Reconstruction

1.2 DESCRIPTION OF WORK

- A. Contract "Server Drive, Rostad Drive, and Felland Road Reconstruction" work categories includes:
1. Traffic control
 2. Pavement milling
 3. Minor landscaping
 4. pavement striping.
 5. Asphalt paving
 6. Concrete paving

1.3 OWNER FURNISHED PRODUCTS

- A. Products furnished by the Owner and installed by the Contractor: NONE

1.4 WORK SEQUENCING

- A. Contractor is responsible for reasonable work sequencing.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

01 30 00 - SUBMITTALS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section defines administrative and submittal procedures for preparing and transmitting submittals.

1.2 SUBMITTAL PROCEDURES

- A. Schedule and transmit submittals far enough in advance of scheduled date of installation to provide required time for reviews, for securing approvals, for possible revision and resubmittal, and for placing order and securing delivery. Forward submittals to Engineer.
- B. Apply Contractor's stamp, signed or initialed certifying that review verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and the Contract Documents. Submittals which do not bear the stamp and signature of the Contractor will be returned to the submitting Contractor without review. Submittals received from subcontractors and suppliers will be returned to them, without review, for submission to the Contractor.
- C. Identify deviations from Contract Documents, previously approved substitutions, Product or system limitations which may be detrimental to successful performance of completed work.
- D. Review individual requirements stated in technical sections of the specifications for submittal combinations, quantities, and special requirements. Compile complete sets of information described and forward in stated quantities; partial or incomplete submittals will be returned without review.
- E. Review shop drawings, product data and samples before forwarding for review. Verify field measurements, catalog numbers, and other information critical to construction or installation. Coordinate each submittal with requirements of work and of Contract Documents.
- F. Engineer's review of shop drawings or other submittals shall be for general conformance with design intent and shall not release the Contractor from responsibility for verifying dimensions, correct quantities and coordination with job conditions.
- G. Contractor and subcontractors shall not order products, fabricate or install materials until Engineer approved shop drawings, product data and samples of those items are received by the Contractor.
- H. The Contractor and subcontractors shall revise and resubmit shop drawings, product data, and samples as necessary to obtain Engineer's approval.
- I. At completion of project provide Owner one set of approved shop drawings.

1.3 PROJECT INFORMATION SUBMITTALS

A. Progress Schedule

1. A construction progress schedule shall be submitted to the Engineer by the Contractor after written notice to proceed and before initiating work.
2. Schedule shall indicate complete sequence of each construction category, indicating a time bar for each major category or unit of work to be performed. Work shall be properly sequenced and indicated work being fully completed within the scheduled time of completion or substantial completion.
3. Schedule shall be coordinated with all subcontractors and material suppliers prior to submission. Contractor shall automatically update schedule whenever there is a significant change in progress, whether in a particular phase or total job progress.
4. Progress schedule shall incorporate, as a separate line item for each section, and trade, shop drawings, product data, and sample submissions. Schedule shall indicate preparation time, approval time, resubmissions, fabrications and installation time.

1.4 CONTRACTOR DATA SUBMITTALS

A. General

1. Each subcontractor and other affected party shall submit to the Contractor, for transmittal to the Engineer, all Test Results, Shop Drawings, Product Data, Qualifications, Certificates, Warranties, and Samples required herein and by the Technical Specification Sections.
2. Submittals shall be made a **minimum of two weeks** prior to the anticipated start of work.

B. Product Data

1. Product data includes manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
2. Compile data into one submittal for each unit of work or system; clearly mark each copy to show choices and/or options applicable to this Project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements.
3. Modify data to delete information which is not applicable to project. Supplement standard information to provide additional information applicable to project. Clearly mark each copy to identify pertinent materials, products, or models. Show dimensions and clearances required. Show performance characteristics and capacities.

4. Advertising brochures which do not clearly describe product information are not acceptable.
5. Submit a minimum of two (2) copies of manufacturer standard schematic drawings or one copy if submitted electronically.

C. Shop Drawings

1. Shop drawings include specially-prepared technical data for this project, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to several projects.
2. Drawings to scale sufficient to adequately illustrate scope of the work intended. For multiple products illustrated on the same sheet, clearly identify products intended for this Project; mark out or identify non-applicable illustrations. Show dimensions and identify those based on field measurements. Identify materials and products; prepare assembly drawings for individual components which are intended to result in complete units.
3. Submit two (2) prints or one copy if submitted electronically.

D. Manufacturer's Certificates

1. Submit in manufacturer's/supplier's standard format written statement(s) attesting that product or material conforms to or exceeds specified requirements, signed by authorized officer of company making the certification.
2. Submit concurrently with submittals where specified in individual specification sections.

END OF SECTION

01 50 00 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section includes temporary utilities, controls, facilities and construction aids required during construction.
- B. Included are the installation, maintenance and removal of these items.

1.2 MEASUREMENT AND PAYMENT

- A. Traffic control shall be measured and paid for by lump sum for all items required related to traffic control.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 TRAFFIC CONTROL

- A. Contractor shall provide and erect traffic signs and barricades to protect traffic and work.
- B. Contractor shall maintain traffic throughout the project in such a manner that adjacent property owners can drive through the project and have access to and from their property.
- C. Conform to work zone traffic control requirements of the Federal Manual on Uniform Traffic Control Devices and plan sheets (MUTCD latest edition).
- D. Contractor shall provide a traffic control plan for review when requested.

3.2 DUST CONTROL

- A. Contractor shall provide daily dust control with one or a combination of the following:
 - 1. Power broom
 - 2. Watering
 - 3. Environmentally safe chemicals

3.3 BARRIERS AND ENCLOSURES

- A. Provide in accordance with Federal, State and local regulations.

END OF SECTION

31 13 14 - ASPHALT MILLING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Mill and remove asphalt pavement. If existing asphalt depth is greater than proposed asphalt thickness, some asphalt may stay on-site.

1.2 MEASUREMENT AND PAYMENT

- A. Asphalt Milling and removal will be measured
 - a. by the square yard in roadway regardless of the depth or number of courses encountered.
 - b. By the square foot in driveways, regardless of the depth.
- B. Payment for Asphalt Milling includes the scarifying, crushing, grading, shaping, hauling away excess, rolling and compacting of existing base and millings. Any water needed to obtain the required density will be incidental. Payment also includes removal of excess base course to match existing curb elevation. Cross slope of roadway on Rostad Drive and Server Drive may be increased to up to 3.5% to keep base course on-site.
- C. Any unstable base caused by over watering or the non-uniform application of water shall be repaired at the Contractor's expense.
- D. When additional aggregate is required, it will be paid for separately as Aggregate Base.

1.3 EQUIPMENT REQUIREMENTS

- A. Provide a self propelled rotary reduction crushing machine that can crush the pavement to the required size and mix the crushed material with the underlying aggregate base to the required depth.
- B. Use an approved water sprinkling system to suppress dust generated from the pavement crushing operation.
- C. Provide final grading equipment that includes automatic slope (crown) control and an automated grade referencing system for longitudinal control.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 EXECUTION

- A. Milling. Uniformly mill existing asphalt pavement.
 - a. Remove excess millings to achieve finished profile provided on the plans.

- b. Ninety-five percent (95%) of the crushed material must have a maximum particle size of 1 1/2 inch, with no particle size exceeding 4 inches.
 - c. Uniformly spread and compact the crushed material to the grades shown on the plans. When additional material is needed to attain the plan grade, use excess salvaged crushed material when available or aggregate base per specifications. Spread added aggregate uniformly before crushing or place aggregate on the crushed surface and remix to the full depth to obtain a uniform mixture.
- B. **Compacting and Shaping.** Compact the crushed material, at a moisture content not greater than optimum, to not less than 95%.
- C. **Excess Crushed Material.** Excess crushed material may be used, if suitable, as base aggregate. Any additional excess crushed material shall be hauled off-site and disposed of properly, incidental to this bid item.

END OF SECTION

31 23 13 - EARTHWORK

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work under this section shall include:
1. Stripping topsoil, stockpiling and salvaging
 2. Excavation
 3. Filling and compacting
 4. Disposal of surplus materials
 5. Finish grading

1.2 REFERENCE STANDARDS

- A. ASTM: American Society of Testing and Materials

1.3 SUBMITTALS

- A. None.

1.4 MEASUREMENT AND PAYMENT

- A. Salvaged or Supplemental Topsoil
1. Measurement for salvaged or supplemental topsoil shall be by the square yard of topsoil removed and stockpiled or provided if existing topsoil is not used.
 2. Payment for salvaged or supplemental topsoil shall include:
 - a. Stripping topsoil
 - b. Hauling
 - c. Stockpiling
 - d. Replacing topsoil
 - e. Finish grading
- B. Common Excavation
1. Payment for common excavation shall be made by the cubic foot based on the plan quantity of the bid.
 2. Payment for excavation shall include:
 - a. Excavating, hauling and grading within the project limits
 - b. Filling
 - c. Compaction of soils
 - d. Finish grading
 - e. Disposal of excess material

PART 2 - PRODUCTS

2.1 EMBANKMENT FILL

- A. Fill shall be void of the following:
 - 1. Cobbles larger than 3 inches
 - 2. Organic soil or vegetation
 - 3. Clays with high plasticity
 - 4. Manmade rubble
 - 5. Contaminated or hazardous waste

PART 3 - EXECUTION

3.1 SALVAGED OR SUPPLEMENTAL TOPSOIL

- A. Clear and grub site and remove trees as depicted on the plans.
- B. Strip and stockpile topsoil
 - 1. All salvaged topsoil shall be respread on the site unless otherwise directed by the Owner. See specification 329200 Landscaping and Seeding for specific requirements.
 - 2. Contractor may propose alternate stockpile areas to those shown on the plan.
 - 3. Protect stockpiles from sediment transport
 - 4. Re-spread salvaged topsoil to a depth of 6 inches and fine grade to allow positive drainage.

3.2 EXCAVATION

- A. Excavate to elevation, grade and section shown on plans.
- B. Suitable (non-organic, no saturated) soils may be reused on the site for dike embankment or general fill.
- C. Unsuitable soils
 - 1. Remove any unstable material from under proposed fill areas. Unstable material will be identified by proof rolling the exposed subgrade
 - 2. Removal of unstable material shall be done only with the Engineer's approval.
 - 3. Soils that are too wet to compact adequately shall not be used for dike fill.
 - 4. Saturated sediments and other unsuitable soils shall be hauled away and disposed off-site (see Section 3.3 below).

3.3 HAUL EXCESS SEDIMENT OFF SITE

- A. Saturated sediments and other unsuitable soils shall be hauled away and disposed off-site.
- B. The Contractor is responsible to secure an area off site to accept all soils removed from the construction site.

END OF SECTION

31 25 13 - EROSION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Description:

Work under this section requires the Contractor to provide and maintain temporary and permanent erosion and sediment control. The Contractor shall provide erosion and sediment control in accordance with the Erosion Control Plan for the project. The Contractor shall install erosion control measures including but not limited to:

1. Erosion Mat.
2. Inlet protection.

1.2 REFERENCE STANDARDS

A. ASTM: American Society for Testing and Materials.

1. ASTM C33 - Standard Specification for Concrete Aggregates.
2. ASTM D3786 - Standard Test Method for Bursting Strength of Textile Fabrics- Diaphragm Bursting Strength Tester Method.
3. ASTM D4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
4. ASTM D4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
5. ASTM D4635 - Standard Specification for Polyethylene Films Made from Low-Density Polyethylene for General Use and Packaging Applications.
6. ASTM D4751 - Standard Test Method for Determining Apparent Opening Size of a Geotextile.
7. ASTM D4833 - Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products.
8. ASTM D5338 - Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials Under Controlled Composting Conditions. Incorporating Thermophilic Temperatures.

B. WDOT: Wisconsin Department of Transportation Standard Specifications.

1. WDOT PAL - WDOT Product Acceptability List.

1.3 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

1. Manufacture's certification and WDOT PAL evidence of inclusion:
 - a. Erosion mat.
 - b. Inlet protection.

1.4 MEASUREMENT AND PAYMENT

A. Erosion Mat

1. Measurement: Erosion mat will be measured by the square yard. The amount will be calculated based on actual length and width of the area covered by the erosion mat. Irregular shapes will be calculated based on the average length and width. Measurement shall not include overlap.
2. Payment: Erosion mat payment will be made at the Contract unit price per square yard and shall include:
 - a. Labor, equipment and materials.
 - b. Installation.
 - c. Anchoring per manufacturer's recommendations.
 - d. Replacing material and or anchors as necessary to prevent erosion until vegetation is established.
- a. Maintenance during construction

B. Inlet protection

1. Measurement: Inlet protection will be measured for payment per each installed.
2. Payment: Inlet protection payment will be made at the Contract unit price per each and shall include:
 - a. Labor, equipment and materials.
 - b. Filter fabric.
 - c. Anchoring or stakes.
 - d. Cleaning or replacement during construction.
 - e. Removal after project stabilization.

PART 2 - PRODUCTS

2.1 EROSION MAT

- A. Erosion mat used on the project shall be listed on the WisDOT PAL, or shall otherwise be approved by the engineer.
- B. Anchoring devices shall be completely biodegradable according to ASTM D5338, and shall maintain their anchoring ability for at least two (2) months, and substantially degrade within four (4) months during the months when the soil temperature is above 53° F.

2.2 INLET PROTECTION

- A. Temporary Inlet Protection consists of geotextile fabric anchored over or around grated or pipe inlets. Refer to Plans details for Inlet Protection Anchoring.

- B. Fabric for Temporary Inlet Protection shall be a woven polypropylene meeting the following properties:
1. Minimum grab tensile strength in machine direction: 200 lbs. according to ASTM D4632.
 2. Minimum puncture strength: 105 lbs. according to ASTM D4833.
 3. Apparent breaking elongation, machine direction: 24% minimum according to ASTM D4632.
 4. Apparent breaking elongation, cross direction: 10% minimum according to ASTM D4632.
 5. Maximum apparent opening size equivalent standard sieve: 0.6 mm max according to ASTM D4751.
 6. Minimum permittivity: 1.9 sec^{-1} according to ASTM D4491.

Other fabrics may be used with the engineers' approval.

PART 3 - EXECUTION

3.1 EROSION MAT

- A. Refer to the Plan detail sheet prior to placing mat, prepare soil, including seed, fertilizer, and raking as required on slopes or channels. Begin at the upslope edge and anchor the upslope end of the mat by burying manufacturer's recommendations and gently roll open the mat uniformly down the slope. At horizontal (transverse) mat joints, overlap the upslope mat over the downslope mat at least 6 inches, and place anchors no more than 12 inches apart. At vertical (longitudinal) mat joints, overlap the joint 4 inches, and place anchors no more than 4 feet apart. In addition place an anchor in the center of each roll of mat at a maximum distance of 4 feet.
- B. Use class and type of mat as depicted on the Plan.
- C. Apply water uniformly and at a rate that will not cause washing or erosion, so that the soil is moistened to a depth of 2 inches.
- D. Maintain the erosion mat and repair loose or damaged areas until the work is accepted.

3.2 INLET PROTECTION

- A. Install as shown on the Plans.
- B. For inlet protection that is placed over the top of inlets, clean or replace the fabric after each rain event of $\frac{1}{2}$ inch or more.
- C. Continue to clean, repair, and replace inlet protection until all disturbed areas are revegetated.

3.3 PROCEDURES AND MAINTENANCE

- A. Install erosion and sediment control measures at the beginning of the project.

- B. Minimize disturbed area.
- C. Locate stockpiles of soils away from waterways and wetlands.
 - 1. Protect with temporary seeding and mulch or cover with tarpaulins or burlap.
- D. Repair, replace and maintain erosion and sedimentation devices until vegetation is reestablished or permanent structures are in place.
- E. All erosion and sedimentation devices shall be inspected and repaired as follows:
 - 1. Weekly.
 - 2. After each rainfall that produces 0.5 inches of rain or more during a 24 hour period.
- F. Document all inspections, deficiencies and repairs; provide a copy of the documentation to the engineer on a weekly basis.
- G. Sediment removal:
 - 1. Remove sediment from any and all devices when the sediment reaches or exceeds 1/3 the height of the device or the sediment accrual area.
- H. Street sweeping:
 - 1. When projects are situated so that traffic and/ or sediment reaches paved streets or neighboring parking lots, those streets/lots shall be swept clean with power sweeping and collection equipment at least weekly, and more frequently as directed by the Engineer. Street sweeping shall be incidental to the cost of construction.

END OF SECTION

32 11 16.19 - BREAKER RUN SUBBASE

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work under this section consists of:

1. Undercut
2. Type SAS geotextile fabric
3. Breaker Run Subbase

1.2 REFERENCE STANDARDS

- A. ASTM: American Society for Testing and Materials
- B. AASHTO: American Association of Highway and Transportation Officials
WISDOT: Wisconsin Department of Transportation Standard Specifications

1.3 SUBMITTALS

- A. Submit two (2) copies of the source and material tests to the Engineer's Representative.
- B. Delivery tickets
1. Provide delivery tickets daily for each load of aggregate delivered to the work site, including:
 - a. Date
 - b. Tare and net weight (tons)
 - c. Type of material

1.4 MEASUREMENT AND PAYMENT (as directed by Engineer's Representative)

- A. Breaker Run
1. Measurement: Breaker run shall be measured by the cubic yard.
 2. Payment: Payment shall be made based on the measured undercut area that is filled with Breaker Run and include:
 - a. Materials, Hauling and placing
 - b. Compacting and grading
 - c. Dust control
 - d. Testing
- B. Type SAS Geotextile Fabric
1. Measurement: Type SAS Geotextile Fabric shall be measured by the square yard and shall not include overlap.
 2. Payment: Type SAS Geotextile Fabric will be paid by the square yard of subgrade covered and shall include:

- a. Materials and delivery
- b. Labor and equipment
- c. Installation

C. Undercut

- 1. Measurement: Undercut shall be measured by the cubic yard of in-place soil and basecourse actually removed.
- 2. Payment: Undercut will be paid per the cubic yard unit price and shall include:
 - a. Labor, equipment, and materials
 - b. Loading, hauling off-site, and dumping
 - c. Proper disposal and any dump site requirements.

PART 2 - PRODUCTS

2.1 AGGREGATES

A. Aggregates shall consist of hard, durable particles:

- 1. Remove oversize material by screening or by crushing to required sizes.
- 2. Composite material shall be free from organic matter, shale, and lumps or balls of clay.

B. Soundness

- 1. When the fraction of aggregate retained on the No. 4 sieve is subject to five (5) cycles of the sodium sulfate soundness test, weighted loss shall not exceed 18% by weight when tested in accordance with AASHTO T96.

C. Wear

- 1. The aggregate shall have a percentage of wear of not more than 50, as determined by AASHTO T96.

D. Moisture content: shall not exceed 7%

E. Gradation

Sieve Size	% By Weight Passing
5 inch	100
1-1/2 inch	0 – 50
No. 4	0 – 10

2.2 TYPE SAS GEOTEXTILE FABRIC

A. Supply Type SAS geotextile fabric to meet WISDOT Specification Section 645.2.2.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

- A. Proof-roll areas designated by the Engineer's Representative with a loaded tandem axle truck.
- B. The Engineer's Representative will mark areas to perform undercutting, remove existing base and excavate to a depth of 9 inches below grade. Perform the excavation with a backhoe employing a bucket with a smooth cutting edge to minimize disturbance of the soil.
- C. Clean all loose subgrade material and place Type SAS Geotextile Fabric. Overlap fabric a minimum of 18 inches at edges.

3.2 SUBBASE PLACEMENT

- A. Place breaker run subbase in undercut areas to allow a minimum of 8 inches of new base course.
- B. Place subbase to the following compacted layer thicknesses:
 - 1. Breaker run subbase:
 - a. The entire course may be placed in a single layer.

3.3 SUBBASE SPREADING

- A. The work shall proceed so that hauling equipment will travel over the previously placed material.
- B. No hauling shall be permitted on the subgrade.
- C. Route hauling equipment as uniformly as possible over all portions of the previously placed layers.

3.4 SUBBASE COMPACTION

- A. Breaker run
 - 1. Compact breaker run to a degree which will resist rutting when proofrolled.

3.5 DUST CONTROL

- A. Contractor shall provide dust control until paving is completed.
- B. Dust shall be controlled with the application of water or an approved dust control agent.

3.6 TESTING

- A. Contractor shall secure the services of an established independent laboratory to perform source testing.
- B. Source testing
 - 1. Sampling: AASHTO T2
 - 2. Sieve Analysis: AASHTO T27
 - 3. Material passing the No. 200 sieve: AASHTO T11
 - 4. Liquid test: AASHTO T89
 - 5. Plasticity index: AASHTO T90
 - 6. Plastic limits: AASHTO T90
- C. Acceptance of the tested work does not relieve the Contractor from making corrections during the warranty period.

Note: Items above may be accepted from tests performed at an earlier date for the same quarry or pit, if the tests were performed within the past 2 years.

END OF SECTION

32 11 23 - BASE COURSE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section includes constructing a crushed aggregate base for:
 - 1. Roadways and driveways
- B. Aggregates from recycled material may not be used unless required as part of this project.

1.2 REFERENCE STANDARDS

- A. ASTM: American Society for Testing and Materials
- B. AASHTO: American Association of Highway and Transportation Officials
- C. WDOT: Wisconsin Department of Transportation Standard Specifications

1.3 SUBMITTALS

- A. Submit two (2) copies of testing data of tests performed by Contractor:
 - 1. Test reports must include date and location in work where test was taken.
- B. For aggregate supplied from a source which was approved for a previous project, provide two (2) copies of following:
 - 1. Source testing report.
- C. Delivery Tickets
 - 1. Provide delivery tickets daily for each load of crushed aggregate for base course delivered to the work, including:
 - a. Date
 - b. Tare and net weight
 - c. Type of material
- D. Samples
 - 1. Provide material samples needed for required testing.

1.4 MEASUREMENT AND PAYMENT

A. Supplemental Crushed Aggregate Base Course

1. Measurement: Base course shall be measured by the ton from delivery tickets provided by the supplier. Tickets must be provided to the Engineer's Representative upon delivery of material to the site. Measurement will not include aggregate placed outside the limits defined in the plans
2. Payment: Supplemental base course will be paid at the unit price per ton and shall include:
 - a. Labor, material, and equipment
 - b. Hauling and placing
 - c. Watering, grading and compaction
 - d. Dust control

B. Shouldering

1. Measurement: Base course shouldering shall be by the lineal foot installed. Measurement will not include aggregate placed outside the limits defined in the plans
2. Payment: Shouldering will be paid at the unit price per lineal foot and shall include:
 - a. Labor, material, and equipment
 - b. Hauling and placing
 - c. Watering, grading and compaction
 - d. Dust control

PART 2 - PRODUCTS

2.1 MATERIALS

A. Aggregates

1. Aggregates shall consist of hard, durable particles of crushed stone or crushed gravel and a filler of natural sand, stone sand, or other finely divided mineral matter.
 - a. Remove oversize material by screening or by crushing to required sizes.
 - b. Composite material shall be free from organic matter, shale, and lumps or balls of clay and shall conform to the gradation requirements below.
2. Liquid limit and plasticity index.
 - a. Aggregate including any blended filler shall have a liquid limit of not more than 25 and a plasticity index of not more than 6.
3. Fracture count

- a. At least 58% of particles retained on the No. 4 sieve shall have at least one fractured face.
4. Soundness/Wear
- a. When the fraction of aggregate retained on the No. 4 sieve is subjected to five cycles of the sodium sulfate soundness test, weighted loss shall not exceed 18% by weight.
 - b. The aggregate shall have percentage of wear of not more than 50.
5. Filler for blending
- a. Additional mineral filler required to meet gradation requirements or for satisfactory binding of material shall be uniformly blended with base course material at the screening plant.
 - b. Mineral fillers shall be free from agglomerations or lumps and shall contain not more than 15% of material retained on a No. 4 sieve.
6. Moisture content: Shall not exceed 7%.

2.2 GRADATION REQUIREMENTS

A. Base Course, ¾ inch

Sieve Size	% By Weight Passing
1 inch	100
¾ inch	95 - 100
⅝ inch	50 - 90
No. 4	35 - 70
No. 10	15 - 55
No. 40	10 - 35
No. 200	5 - 15

PART 3 - EXECUTION

3.1 PREPARATION OF SUBGRADE

- A. Do not place the base course on a subgrade that is soft or spongy or one that is covered by ice or snow.
- B. Do not place base course material on a dry or dusty subgrade when existing condition would cause rapid dissipation of moisture from base course material and hinder or preclude its proper compaction.
 - 1. Apply water to such dry foundations and rework or recompact as necessary.

3.2 CONSTRUCTION METHODS

- A. Preparation of subgrade for crushed aggregate base course shall be in accordance with requirements of Section: Earthwork.
- B. Place crushed aggregate base course to the depth shown on the plans.
 - 1. Maximum compacted thickness of any one layer shall not exceed six (6) inches.
 - a. When multiple courses are required, they shall be composed of approximately equal thicknesses.
- C. Spreading Base Material
 - 1. The work shall proceed so that the hauling equipment will travel over the previously placed material.
 - 2. No hauling shall be permitted on the subgrade.
 - 3. Route hauling equipment as uniformly as possible over all portions of the previously constructed layers of the base course.
- D. Compaction
 - 1. After a layer of course has been placed and spread to the required thickness, width, and contour, it shall be compacted.
 - 2. If the material is deficient in moisture content, add moisture prior to compaction operations by means of appropriate equipment.
 - 3. Each layer or course of subbase or base placed shall be compacted to a minimum of 95% Standard Proctor.
 - 4. Areas where proper compaction cannot be obtained due to segregation of materials, excess fines, or other deficiencies shall be reworked or the material shall be removed and replaced with material that will yield the desired results.
 - 5. Maintain line and grade during compaction operations.
- E. Maintenance
 - 1. The Contractor shall be responsible for and maintain the base course until surface paving is complete.
- F. Dust Control
 - 1. Contractor shall maintain dust control until paving is completed.
 - 2. Dust control shall be by the application of water or an approved dust control material.

3.3 TESTING

- A. Contractor shall secure the services of an established independent laboratory for soil testing services as follows:
 - 1. Source testing

- a. Sampling: AASHTO T2
- b. Sieve Analysis
 - 1) AASHTO T27 for aggregates including fracture count
 - 2) AASHTO T37 for mineral fillers
- c. Liquid test: AASHTO T89
- d. Plasticity index: AASHTO T90
- e. Soundness: AASHTO T104 using sodium sulfate
- f. Wear: AASHTO T96
- g. Standard Proctor: ASTM D698

Note: Items above may be accepted from tests performed at an earlier date for the same quarry or pit if the tests were performed within the past two years.

2. Installation testing

- a. Perform a minimum of one (1) moisture/density test per 10,000 sq. ft. per layer of base course placed.
 - 1) Comply with ASTM D6938 (Nuclear Method).
- b. Perform a minimum of two sieve analysis per day conforming with:
 - 1) AASHTO T27 for aggregates including fracture count.

3. Additional density and gradation testing

- a. Perform under following circumstances:
 - 1) Aggregate density does not meet project requirements
 - 2) Change in method of compaction
 - 3) Change in source or quality of aggregate

B. When the testing results show that the work is of an acceptable nature, the acceptance of the work shall not relieve the Contractor from making corrections to the tested work during the warranty period.

END OF SECTION

32 12 16.13 - HOT MIX ASPHALT PAVEMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Description:

Work under this section includes the material requirements for aggregates and asphalt cement materials for utilization in binder and surface course pavements for light to heavy duty streets and roads. This section also includes provisions for patching (new culvert installation) and paved paths.

B. Related Sections:

Section 32 11 23 – BASE COURSE.

1.2 REFERENCE STANDARDS

A. American Society of Testing and Materials (ASTM)

B. American Association of State Highway Officials (AASHTO)

C. Federal Aviation Agency (FAA)

D. Asphalt Institute (AI)

E. Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction (WisDOT)

1.3 SUBMITTALS

A. Submit the following to the Engineer's Representative at least one week prior to paving:

1. Mixture design.
2. Aggregate quality tests:
 - a. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - b. ASTM C117 - ASTM C117 - 04 Standard Test Method for Materials Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing.
 - c. ASTM C88 - Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
 - d. ASTM C131 - Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

1.4 WARRANTY

A. Asphalt pavement shall have a warranty of 2 years after installation protecting against defects in the mix or installation. Items that void the warranty are:

1. Extreme rutting over 1/4-inch in depth.
2. Minor cracks more than 2 cracks per 100 feet.
3. Major cracks more than 1/8-inch wide

1.5 MEASUREMENT AND PAYMENT

A. Hot Mix Asphalt Pavement

1. Measurement: Hot mix asphalt pavement will be measured by the ton. Quantity shall be based on tonnage from delivery tickets which must be provided to Engineer's Representative upon delivery of material to site.
2. Payment: Hot mix asphalt pavement will be paid at the unit price per ton and shall include:
 - a. All materials.
 - b. Pavement saw cutting, unless indicated in proposal.
 - c. Hauling and placing.
 - d. Compaction.
 - e. Tack, unless indicated in proposal.
 - f. Site restoration.
 - g. Testing.
 - h. Saw cutting.
 - i. Cleaning and tack coat.
3. If there are deficiencies in density, deductions will be made as follows:

Percent Below Specified Density	Percent of Unit Price Allowed
From 0.5 to 1.0 inclusive	98%
From 1.1 to 1.5 inclusive	95%
From 1.6 to 2.0 inclusive	91%
From 2.1 to 2.5 inclusive	85%
From 2.6 to 3.0 inclusive	70%
More than 3.0	Remove and replace to the specified density

Note: See Specification MINIMUM REQUIRED DENSITY, Section 3.6 below.

- a. A lot shall be defined as follows:
 - 1) A contiguous binder or surface course not exceeding 1,000 tons.
 - 2) Areas larger than 1,000 tons shall be divided into additional lots or a fraction thereof.

PART 2 - PRODUCTS

2.1 AGGREGATE

- A. Conform to WisDOT.
- B. Unless designated otherwise, use the following nominal size of aggregate in the bituminous mixture.
 - 1. Lower pavement layer: 19.0 mm
 - 2. Upper pavement layer: 12.5 mm
 - 3. Felland Road: 9.5 mm

2.2 ASPHALT CEMENT

- A. Performance grade PG 58-28

2.3 TACK COAT

- A. SS-1 or SS-1h conforming to ASTM D977 - Standard Specification for Emulsified Asphalt.

2.4 ASPHALTIC MIXTURE

- A. Conform to WisDOT.
- B. Mixture requirement:
 - 1. Lower Pavement Layer 3 MT 58-28 S
 - 2. Upper Pavement Layer 4 MT 58-28 S
 - 3. Felland Road LT 58-28

PART 3 - EXECUTION

3.1 EQUIPMENT REQUIREMENTS

- A. Asphalt paver shall have the following features:
 - 1. Hopper:
 - a. Shall be of sufficient capacity to permit a uniform spreading operation.
 - b. Shall be equipped with a distribution system to place mixture uniformly in front of the screed without segregation.
 - 2. Screed:
 - a. Shall be capable of heating mix and adjusting to slope and elevation.
 - b. Must effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture.
 - 3. Automatic control system:

- a. Equip paver with a control system capable of automatically maintaining the specified screed elevation.
- b. The control system shall be automatically actuated through sensor-directed mechanisms which will maintain the paver at a predetermined transverse slope and grade.
- c. The controller shall be capable of maintaining the screed at the desired slope of plus or minus 0.1 percent.
- d. The controller must be capable of working in conjunction with any of the following attachments:
 - 1) Ski-type device of not less than 30 feet in length.
 - 2) String line set to grade.
 - 3) Laser control.

B. Roller shall be in accordance to following:

- 1. Designed specifically for asphalt compaction.
- 2. Vibratory with adjustable frequency and amplitude.
- 3. Compression: 250 pounds per inch of width of drive rollers.
- 4. Provide device to moisten and clean rollers.

C. Trucks shall be covered and insulated adequately to provide a mix temperature of 250°F (121°C) at point of delivery.

3.2 SURFACE PREPARATION

A. Prepare base in accordance with Section 32 11 23 – BASE COURSE for initial asphalt layer. For additional layers, or top of previously milled asphalt surface, existing asphalt shall be clean, dry, and have tack coat applied at a rate of 0.050 – 0.070 gallons per square yard.

B. Adjust sanitary and storm manholes to finished pavement grade.

C. Adjust valve boxes to finished pavement grade.

3.3 ASPHALT PAVEMENT PLACEMENT

A. Place to thickness, grade and section shown on Plan.

- 1. Course thickness shall be achieved by placing single or multiple layers of asphalt to the tolerances listed in WISDOT section 460.3.2.

B. Hand Spreading:

- 1. Will be permitted only in areas inaccessible to finishing machines.
- 2. Place by means of a shovel and shape with rake or lute.
- 3. Do not rake over machine spread surfaces.

C. Compaction:

1. Roll as soon as mixture will support roller without displacing pavement mat.
 - a. Initial pass shall be with drive roller toward paver.
 - b. Start at lower unsupported edge and progress toward other edge.
 - c. Overlap successive trips.
2. Subsequent strips laid; start adjacent to previous laid strip and continue to opposite edge.
3. Roll until:
 - a. Roller marks are minimized or eliminated.
 - b. Surface is of uniform density.
 - c. Required density is obtained.

D. Bonding Joints:

1. Clean all joints.
2. Joining new asphalt to existing asphalt:
 - a. Saw cut all joints and tack coat
3. Joining new asphalt to new asphalt.
 - a. Saw cut end joint if it has been over 12 hours since the other "new" pavement had been placed.
 - b. Tack coat all cold joints.

E. Bonding Surfaces:

1. Clean and tack all existing asphalt surfaces.
2. Clean and tack all new asphalt surfaces if they have become contaminated or have been exposed to traffic.

3.4 PAVING RESTRICTIONS

- A. Do not place asphalt pavement when following conditions exist:
1. Unstable or frozen base.
 2. During rain or snow.
 3. When air temperature is less than 35°F (1.5°C).

3.5 SURFACE REQUIREMENTS

- A. Surface shall be dense and to a true plane of ¼ inch in 10 feet.
- B. Asphalt shall be replaced when the following conditions exist:
1. Pavement has raveling, rutting or will not set up to receive traffic.
- C. As a minimum, replacement shall be a full lane width, patching will not be permitted.

1. All joints will be saw cut and tack coated.

3.6 MINIMUM REQUIRED DENSITY

- A. Compact all layers of hot mix asphalt mixture to the density table shown for the applicable mixture, location and layer.

5. Table 460-3 Minimum Required Density^[1]

Location	Layer	Percent of Target Maximum Density		
		Mixture Type		
		LT and MT	HT	SMA ^[5]
Traffic Lanes ^[2]	Lower	93.0 ^[3]	93.0 ^[4]	—
	Upper	93.0	93.0	—
Side Roads, Crossovers, Turn Lanes, & Ramps	Lower	93.0 ^[3]	93.0 ^[4]	—
	Upper	93.0	93.0	—
Shoulders and Appurtenances	Lower	91.0	91.0	—
	Upper	92.0	92.0	—

^[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

^[2] Includes parking lanes as determined by the engineer.

^[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

^[4] Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

^[5] The minimum required densities for SMA mixtures are determined according to CMM 8-15.

3.7 ACCEPTANCE TESTING

- A. Density Testing: Binder shall be divided into 3 lots and surface shall be divided into 2 lots. Perform four (4) nuclear density tests per lot.
- B. Contractor shall secure the services of an established independent testing laboratory to perform all testing or may perform own testing if certified by WDOT.

END OF SECTION

32 16 13.13 - CONCRETE

PART 1 - GENERAL

1.1 DESCRIPTION

A. The work included in this section includes the following:

1. Grading and compaction of subgrade.
2. Saw cutting.
3. Concrete construction.

1.2 REFERENCE STANDARDS

A. American Society for Testing and Materials (ASTM)

1. ASTM C31: Standard Practice for Making and Curing Concrete Test Specimens in the Field.
2. ASTM C39: Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
3. ASTM C94: Standard Specification for Ready-Mixed Concrete.
4. ASTM C143: Standard Test Method for Slump of Hydraulic-Cement Concrete.
 - a. ASTM C231: Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
5. ASTM C1064: Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
6. ASTM D698: Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³).
7. ASTM D1751: Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).

B. American Concrete Institute (ACI)

1. ACI 305 – Guide to Hot Weather Concreting.
2. ACI 306 – Cold Weather Concreting.

C. Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction (WisDOT)

D. AASHTO: American Association of State Highway and Transportation Officials.

1. AASHTO M148 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.

1.3 SUBMITTALS

A. Design Mixes

1. Submit the composition and strength testing results for design mix.

B. Certificates

1. Provide producer's certification that the supplied materials meet the applicable specification requirements.
2. Provide the material content per cubic yard for each class of concrete furnished.
 - a. Dry weight of cement/fly ash.
 - b. Saturated surface-dried weights of fine and coarse aggregates.
 - c. Quantity, type, and name of any admixtures used.
 - d. Weight of water.

1.4 MEASUREMENT AND PAYMENT

A. Measurement will be made by the square foot installed.

B. Payment shall be made per square foot installed and shall include:

1. Labor, material, equipment and testing.
2. Pavement saw cutting, unless indicated in proposal.
3. Excavation and preparation of foundation.
4. Placing, finishing, curing, and protection.
5. Expansion and contraction joints.
6. Disposal of surplus material.

PART 2 - PRODUCTS

2.1 CONCRETE

A. Conform to ASTM C94 and the following:

1. Twenty-eight day compression strength (PSI): 4000.
2. Maximum aggregate size: 1-1/2 inches.
3. Minimum cement content: 5.5 bags/CY.
4. Air content (percent): 6% plus or minus 1.5%.

B. Admixtures to lower freezing point of concrete are not permitted.

2.2 EXPANSION JOINT

A. Conform with ASTM D1751

2.3 REINFORCEMENT BAR

- A. Conform to ASTM A934.
- B. Grade 60, epoxy coated.
- C. Minimum Bar Size: #4.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

- A. The subgrade shall be prepared by excavating to the lines, grades, and cross sections shown on the plans and required for placing the curb and gutter.
- B. Contractor shall furnish, install, and compact granular base material.
 - 1. Base material shall be WisDOT 3/4 inch dense graded crushed aggregate.
 - 2. Base material shall be compacted by mechanical means to at least 95 percent of the maximum dry density as determined by the Standard Proctor Test (ASTM D698).
 - 3. The base shall be thoroughly moistened prior to placing of concrete.

3.2 FORMS

- A. Clean and coat forms with clear, non-staining mineral or paraffin base form oil.
- B. Removal of Forms
 - 1. The forms may be removed provided the concrete is sufficiently hard so as not to be damaged and will retain its shape.
 - 2. The Contractor shall be responsible for the protection of the curb and gutter after the removal of the forms until the concrete has attained its proper strength.

3.3 ENVIRONMENTAL REQUIREMENTS

- A. Follow ACI 305 whenever mean surrounding air temperature equals or exceeds 80°F (27°C).
- B. Do not place concrete whenever air temperature equals or exceeds 90°F (32°C).
- C. Follow ACI 306 whenever mean surrounding air temperature is below 40°F (4.5°C).
- D. Do not place concrete during rain, sleet, or snow unless protection is provided.

3.4 CONCRETE PLACEMENT

- A. No more than 48 hours shall elapse between removal of existing concrete and the placing of new concrete, unless approved by Engineer.
- B. Place concrete by using the slip form or fixed form method.
- C. Place sidewalk ramps and driveways where shown on plans or as directed by Engineer's Representative.
- D. Depositing Concrete:
 - 1. Thoroughly moisten base prior to placing concrete.
 - 2. Employ methods which will prevent separation of material.

3. Concrete shall be supplied at a rate which will prevent the loss of plasticity and interruptions.
4. Deposit concrete as near as possible to its final position to prevent segregation due to flowing and handling.
5. Do not use retempered or remixed concrete.
6. Do not deposit partially hardened concrete or concrete contaminated with foreign material.
7. Placement of concrete shall be a continuous operation until a section is completed.
8. Consolidate concrete by mechanical vibration and spading and thoroughly work concrete around reinforcement, embedded fixtures and into corners of forms.

3.7 CONTRACTION JOINTS

- A. Tool at maximum ten (10) foot intervals to a minimum depth of two (2) inches.

3.8 EXPANSION JOINTS

- A. Place as needed.

3.09 FINISHING

- A. The face surfaces of the curb and gutter shall be finished smooth by means of an appropriate float.
- B. Exposed edges shall be rounded with an edge of 1/4 inch radius.
- C. Honeycombed areas shall be pointed with mortar composed of three parts sand and one part Portland cement immediately after the curb and gutter has been placed.
- D. Before the mortar has set, the surface shall be lightly broomed at right angles to the traffic.

3.10 CURING

- A. Contractor may use a white pigmented curing compound conforming to ASTM C309, Type 2.
- B. Hot Weather Conditions: Conform to ACI 305.
- C. Cold Weather Conditions: Conform to ACI 306.
- D. During curing period, protect concrete from damaging mechanical disturbances, water flow, loading, shock and vibration.

3.11 TESTING

- A. The Contractor shall secure the services of an established independent testing laboratory for the following testing services:
 1. Material acceptance testing

- a. Design mix.
- 2. Installation testing
 - a. Slump.
 - b. Air entrainment.
 - c. Compressive strength test.
- 3. Additional testing
 - a. Perform under the following circumstances:
 - 1) Material failure.
 - 2) Change in ready-mix source.
 - 3) Design mix changes requested by Contractor.
- B. Perform testing in accordance with the following:
 - 1. Slump: ASTM C143.
 - 2. Air entrainment: ASTM C231.
 - 3. Compressive strength test: ASTM C31 and C39.
- C. Perform testing with the following frequencies for each class of concrete:
 - 1. One test daily or one per 100 cubic yards placed for each concrete class, whichever number is greater.
- D. Compressive strength test shall consist of six (6) standard test cylinders made from a single batch of concrete:
 - 1. Test one cylinder at 3 days. If first cylinder is >2,700 PSI, test a second cylinder. If these two cylinders average >3,000 PSI, open the curb to traffic. Report cylinder strengths to Engineer for determination of timing/quantity of future tests.

END OF SECTION

32 17 23 - PAVEMENT MARKING

PART 1 - GENERAL

1.1 SUMMARY

A. Description:

Work under this section includes pavement marking and furnishing and applying pavement marking as indicated on the Plans. Work includes:

1. Surface preparation.
2. Marking layout.
3. Application, protection and drying.
4. Supplying labor, material and equipment to complete the work.

1.2 REFERENCE STANDARDS

A. AASHTO: American Association of State Highway and Transportation Officials.

1. AASHTO M248: Standard Specification for Ready-Mixed White and Yellow Traffic Paints.
2. AASHTO M247: Standard Specification for Glass Beads Used in Pavement.

1.3 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

1. Furnish manufacture's recommended surface preparation, application rate and instructions for paint and glass spheres (as applicable).

1.4 MEASUREMENT AND PAYMENT

A. Pavement Marking Removal is incidental and will not be measured.

B. Pavement Marking - Linear

1. Measurement: Pavement marking - linear will be measured by the linear foot acceptably completed.
2. Payment: Pavement marking - linear payment will be made at the Contract unit price per linear foot for the indicated line width and color and shall include:
 - a. Labor, material and equipment.
 - b. Surface preparation.
 - c. Paint.
 - d. Protection during curing.

C. Pavement Marking - Each

1. Measurement: Pavement marking - each will be measured per each acceptably completed.
2. Payment: Pavement marking - each payment will be made at the Contract unit price per each for the indicated marking and shall include:
 - e. Labor, material and equipment.
 - f. Surface preparation.
 - g. Paint.
 - h. Protection during curing.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the job site in the manufacturer's original, new, unopened container bearing:
1. Manufacturer's name.
 2. Color and number.
 3. Stock number and date of manufacture.
 4. Contents by volume for pigment and vehicles.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Paint: AASHTO M248, Type F.
- B. Glass Spheres: AASHTO M247.

PART 3 - EXECUTION

3.1 MARKING REMOVAL

- A. Remove markings where designated on drawings or directed by the Engineer's Representative within the project limits.
- B. Markings shall be removed to the fullest extent possible by any method that does not materially damage the surface or leave detrimental residue or discoloration. Painting over existing strips is not considered removal.
- C. When blast cleaning, vacuum cleaning shall be done concurrently with the blast cleaning operation.
- D. When chemicals are used for removal, after removal is completed they shall be flushed and diluted to the point where no damage will occur to pavements and surrounding areas.
- E. Any material damage to the pavement or surfacing caused by the marking removal

operation shall be repaired by the Contractor at no additional compensation.

3.2 SITE CONDITIONS

- A. The pavement surface shall be dry and free from frost.
- B. Dust, dirt, glaze, oil, grease, paint, gravel, debris and contaminants which would prevent bonding shall be removed prior to marking.
- C. Do not apply markings when:
 - 1. Pavement temperature is below 45°F.
 - 2. Air temperature is below 40°F.
 - 3. Weather is foggy or windy.
 - 4. Relative humidity exceeds 85%.

3.3 APPLICATION

- A. Apply paint to location, configuration and color as shown on Plans.
- B. Paint shall be applied at the rate recommended by the manufacturer. The minimum application rate shall be 105 square feet per gallon.
- C. A period of 48 hours shall elapse between placement of bituminous surface course and application of paint.
- D. Contractor shall protect markers until cured.
- E. Glass sphere shall be applied at a rate recommended by the manufacturer. The minimum application rate shall be six pounds per gallon of paint.

END OF SECTION

32 92 00 - LANDSCAPING AND SEEDING

PART 1 - GENERAL

1.1 SUMMARY

A. Description:

Work under this section consists of the following:

1. Topsoil.
2. Fertilizing.
3. Seeding.

1.2 REFERENCE STANDARDS

- A. AOSA: Association of Official Seed Analysis
- B. AASHTO: American Association of State Highway and Transportation Officials
- C. WISDOT: Wisconsin Department of Transportation Standard. Specifications & PAL

1.3 SUBMITTALS

A. Fertilizer

1. Furnish certification from supplier attesting to:
 - a. Brand name, chemical analysis, and guarantee of analysis.

B. Seed

1. Furnish certification of conformance with AOSA "Rules for Testing Seed" and attest to:
 - a. Mix, age, weed content, purity and germination.
2. Furnish seed mix verification by way of certified mix labels from sealed seed mix bags.

C. Topsoil

1. Submit test results from an independent testing lab that the topsoil meets the requirements of Section 2.1 below.

1.4 MEASUREMENT AND PAYMENT

A. Fertilizing and Seeding

1. Measurement: Fertilizing and seeding will be measured by the square yard. The amount will be calculated from the actual square yards placed.
2. Payment: Fertilizing and seeding will be paid at the unit price per square yard and shall include:
 - a. Labor, tools, equipment and incidentals necessary to complete the work.
 - b. Furnishing seed and fertilizer.
 - c. Preparing the seed bed and sowing the seed.
 - d. Incorporation of the fertilizer.
 - e. Placing the mulch and mulch binder.
 - f. Maintenance.
 - g. Warning stakes

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. Topsoil shall consist of the natural loam, sandy loam, silt loam, silty clay loam or clay loam humus-bearing soils adapted to the sustenance of plant life, and such topsoil shall be neither excessively acid nor excessively alkaline. The pH of the topsoil shall be between 6.0 and 8.0.
- B. Topsoil shall be non-shredded and free of stones so that 100 percent of the topsoil passes a one-inch sieve and at least 90 percent passes a No. 10 sieve.

2.2 FERTILIZER

- A. Type A fertilizer shall meet the following minimum requirements:
 1. Nitrogen, not less than 16%.
 2. Phosphoric Acid, not less than 6%.
 3. Potash, not less than 6%.
 4. Sum of nitrogen, phosphoric acid and potash shall be not less than 32 percent. Total nitrogen shall be not less than the sum of the phosphoric acid and soluble potash.
- B. Type B fertilizer shall meet the following minimum requirements:
 1. Nitrogen, not less than 16%.
 2. Phosphoric Acid, not less than 6%.
 3. Potash, not less than 24%.
 4. Sum of nitrogen, phosphoric acid and potash shall be not less than 50 percent.

2.3 SEED

- A. Seed mix shall be the following:

Reinders Stock No. 31-1400

Salt Tolerant Grass Seed Mix

25% Fults Alkaligrass.
20% Sea Link Creeping Red Fescue.
20% Kenblue Kentucky Blue Grass.
15% Spartan Hard Fescue.
20% Fiesta III Perennial Rye Grass.

PART 3 - EXECUTION

3.1 TOPSOILING

- A. Topsoil all areas which are required to be seeded. Place topsoil to the following depth:
 - 1. Seeded areas: 6 inches abutting pavement when settled. Feather into existing healthy grass.
- B. Topsoil Placement For Seeding Lawns
 - 1. Mechanically level subgrade to allow uniform placement of topsoil.
 - 2. Remove rocks, roots, clods and other foreign material.
 - 3. Place topsoil to required depth.
 - 4. Mechanically level topsoil.
 - 5. Rake topsoil smooth and remove all lumps.
 - 6. Seed as required.

3.2 FERTILIZING

- A. Fertilize all areas to be seeded.
- B. Apply fertilizer at a rate of seven pounds per 1,000 square feet or to meet Manufacturer's recommendations.
- C. Use type of fertilizer best suited for area.
- D. Incorporate during seeding operation.

3.3 SEEDING

- A. Seeding rate shall be 3 to 5 lbs. per 1,000 sq. ft. (150 to 225 lbs. per acre), or as otherwise recommended by the Manufacturer.
- B. Seeding
 - 1. Utilize a machine or other application method which will produce the following:
 - a. Apply seed uniformly at the rate specified.
 - b. Cover seed with approximately 1/4 inch of topsoil.
 - c. Roll lightly.

- d. Apply seed at right angles to surface drainage.

3.4 APPLICATION

- A. The Contractor shall landscape all areas disturbed by construction activities on and adjacent to the construction site including:
 1. Earthen stockpiles.
 2. Equipment parking areas.
 3. Areas disturbed from transporting equipment.
 4. Areas disturbed from storing materials.
 5. Areas used to dispose of surplus soils.
- B. Apply landscaping procedures as follows:
 1. Lawns
 - a. Topsoil.
 - b. Seed.
 - c. Fertilize.
 - d. Mulch and mulch binder.

3.5 MAINTENANCE

- A. Maintain all seeded, sodded and landscaped areas until the following conditions are met:
 1. Seeding has established a stand of grass covering a minimum of 70% of the seeded area which is uniform in density and color.
 2. Sodding has established a root system into the sod bed.
 3. Landscaping is capable of resisting erosion.
- B. The newly seeded areas shall be watered as necessary to maintain the soil in a moist condition for 21 days after seeding. The area shall be watered at a rate that will moisten the upper 1/2 inch of soil, but not dislodge mulch or soil particles.

3.6 WARRANTY

- A. The seeding shall be warranted that lawn-type grass will be established and healthy for two years after planting.

END OF SECTION

Location Maps

Boring Logs

LOG OF TEST BORING

PROJECT NO. 0207300-161435

BORING NO. 2

PROJECT NAME PEPSI WAY-ROSTAD DR.
TOWN OF BURKE, DANE CO., WI

SURFACE EL. N.I.

DEPTH (FEET)	DESCRIPTION OF MATERIAL	N	∇	MOISTURE/TEXTURE	LABORATORY TESTS	ELEV. (FEET)
1.2	FILL, 4 3/4" ASPHALT OVER 9 1/4" BASE			MOIST	Qp = 2.0 TSF	
	CLAY, MOTTLED GRAY & BROWN, BROWN & SANDY AT 6', RATHER STIFF (CL)	12		MOIST		
		10				
8		10				
	SILTY SAND W/ GRAVEL, BROWN, MEDIUM DENSE TO LOOSE (SM)		∇	MOIST TO WATERBEARING/FINE		
		10				
15	END OF BORING		8			

DRILLING FIRM: SOILS & ENGRG. SERVICES

WATER LEVEL MEASUREMENTS

DRILLING DATE(S): 7/15/16

DRILLING METHOD(S): 2-1/4"HSA

DATE

TIME

SAMPLED DEPTH

WATER LEVEL

STATION: N.I.

7/15/16

AT COMPLETION

15'

11.7'

OFFSET: N.I.

TIME OF COMPLETION: N.I.

N = BLOWS PER FOOT
∇ = WATER LEVEL



ENGINEERS
ARCHITECTS
SCIENTISTS
PLANNERS

MEAD & HUNT INC.
6501 Watts Road, Suite 101
Madison, Wisconsin 53719-2700
Phone: 608-273-6380
Fax: 608-273-6391

LOG OF TEST BORING

PROJECT NO. 0207300-161435

BORING NO. 4

PROJECT NAME PEPSI WAY-ROSTAD DR.
TOWN OF BURKE, DANE CO., WI

SURFACE EL. N.I.

DEPTH (FEET)	DESCRIPTION OF MATERIAL	N	∇	MOISTURE/ TEXTURE	LABORATORY TESTS	ELEV. (FEET)
1.7	FILL, 3 3/4" ASPHALT OVER 18" BASE			MOIST		
	SILTY SAND W/ A LITTLE GRAVEL, BROWN, MEDIUM DENSE (SM)	37		MOIST/ FINE		
5	END OF BORING		13			

DRILLING FIRM: SOILS & ENGRG. SERVICES		WATER LEVEL MEASUREMENTS			
DRILLING DATE(S): 7/15/16		DATE	TIME	SAMPLED DEPTH	WATER LEVEL
DRILLING METHOD(S): 2-1/4"HSA					
STATION: N.I.		7/15/16	AT COMPLETION	5'	NONE
OFFSET: N.I.					
TIME OF COMPLETION: N.I.					

N = BLOWS PER FOOT
∇ = WATER LEVEL



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LOG OF TEST BORING

PROJECT NO. 0207300-161435

BORING NO. 5

PROJECT NAME PEPSI WAY-ROSTAD DR.
TOWN OF BURKE, DANE CO., WI

SURFACE EL. N.I.

DEPTH (FEET)	DESCRIPTION OF MATERIAL	N	∇	MOISTURE/ TEXTURE	LABORATORY TESTS	ELEV. (FEET)
1.5	FILL, 4" ASPHALT OVER 14" BASE	18	7	MOIST		
	CLAY, DARK GRAY (BROWN MOTTLING AT 3.5'), STIFF TO MEDIUM (CL)			MOIST		
5	END OF BORING					

DRILLING FIRM: SOILS & ENGRG. SERVICES

WATER LEVEL MEASUREMENTS

DRILLING DATE(S): 7/15/16

DRILLING METHOD(S): 2-1/4"HSA

DATE

TIME

**SAMPLED
DEPTH**

**WATER
LEVEL**

STATION: N.I.

7/15/16

AT
COMPLETION

5'

NONE

OFFSET: N.I.

TIME OF COMPLETION: N.I.

N = BLOWS PER FOOT
∇ = WATER LEVEL



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