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CHANDLER arizona Community of Innovation	**City of Chandler, Arizona** **Public Works & Utilities Department** **Capital Projects Division**

CONSTRUCTION BID

HUNT HIGHWAY WELL
CITY PROJECT NO.: WA2405.401

MAYOR
Kevin Hartke

VICE MAYOR
Angel Encinas

COUNCIL
OD Harris Matt Orlando
Christine Ellis Jane Poston Jennifer Hawkins

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

CITY OF CHANDLER, ARIZONA

CONSTRUCTION BID

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LEGAL AD DEPARTMENT

INVITATION TO BID

HUNT HIGHWAY WELL
CITY PROJECT NO.: WA2405.401

NOTICE IS HEREBY GIVEN that sealed bids will be received and date/time stamped by the City of Chandler Capital Projects Office, 215 East Buffalo Street, Chandler, Arizona 85225 until the bid submission date specified below.

Solicitation documents and addenda may be downloaded at the Arizona Procurement Portal - https://app.az.gov/. It is the contractor's sole responsibility to obtain all addenda from the Arizona Procurement Portal prior to submitting their bid proposal, and to acknowledge receipt and acceptance of the addenda in their bid proposal submittal. No separate notification of addenda will be issued. The City recommends Contractors regularly check Arizona Procurement Portal - https://app.az.gov/ for updated information.

PRE-BID CONFERENCE:

August 4, 2026 **8:00 a.m.** **Arizona time**	**The pre-bid conference will be a mandatory site visit at:** Northeast corner of Hunt Highway and Cooper Road, Chandler Arizona. For GPS Navigation, use coordinates 33.204837, -111.805152. Project Location and parking is in the dirt lot to the east of Hunt Highway Water Production Facility.

SOLICITATION QUESTIONS DUE DATE:

August 7, 2026 **5:00 p.m.** **Arizona time**	All solicitation questions must be emailed to Bid.Questions@chandleraz.gov with the subject line of: **"WA2405.401 Hunt Highway Well BID QUESTION".** Questions received **after the due date and time** will **NOT** be considered.

BID SUBMISSION:

August 19, 2026 **3:00 p.m.** **Arizona time**	Sealed bids must be delivered to the City of Chandler Capital Projects Office located at 215 East Buffalo Street, Chandler, Arizona, 85225. **Bids must be received on or before date and time specified.** At that time, bids will be publicly opened and read aloud in the **Saguaro** Conference Room. Bids received after the due date and time will be returned unopened without consideration. All bids must be submitted in a sealed envelope plainly marked as follows: **BID OF _____, CONTRACTOR** **FOR:** ***"Hunt Highway Well"*** **"WA2405.401"**

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Work under this Agreement consists of drilling and completion of one potable water production well using the reverse circulation rotary drilling method for the City of Chandler to a depth of approximately 1,500 feet below ground surface. The proposed well (Well), is located at the northeast corner of Hunt Highway and Cooper Road, Chandler, Arizona.

Work must be completed within 180 consecutive calendar days from the Notice to Proceed. The Engineer's Estimate range is $1.5 Million - $2 Million.

Bids must be submitted on the Proposal Form provided and be accompanied by the Bid Bond for not less than ten percent (10%) of the total bid, payable to the City of Chandler, Arizona, or a certified or cashier's check. PERSONAL OR INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.

The successful bidder will be required to execute the standard form of agreement for construction prior to Council award

The successful bidder must furnish a Payment Bond and Performance Bond in the amount equal to one hundred percent (100%) of the Agreement Price.

The right is hereby reserved to accept or reject any or all bids or parts thereto, to waive any informalities in any proposal and reject the bids of any persons who have been delinquent or unfaithful to any agreement with the City of Chandler.

All Bids will remain open for 90 days after the Bid opening day, but the City may, in its sole discretion, release any Bid and return the bid security prior to that date. No Bidder may withdraw his Bid during this period without written permission from the City.

Find PRELIMINARY BID RESULTS at: https://www.chandleraz.gov/business/vendor-services/capital-projects

Protest Policy - A protest of a proposed award must be filed WITH THE PURCHASING OFFICE within 5 calendar days of the first posting of the award recommendation. Award recommendations are posted on the Capital Projects web site or the City Clerk web site. If the due date occurs on a weekend or holiday the protest must be filed the next business day.

A Protest must include:

- The name, address and telephone number of the protester;
- The signature of the protester or its representative;
- Identification of the project and the solicitation or agreement number;
- A detailed statement of the legal and factual grounds of the protest including copies of relevant documents; and
- The form of relief requested.

City will review the protest and issue a written response.

PUBLISHED DATE:	**July 24, 2026** **July 31, 2026** Arizona Republic AFFIDAVIT OF PUBLICATION

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

BID BOND

ARIZONA STATUTORY BID BOND PURSUANT TO
TITLES 28, 34 AND 41,
OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must not be less than 10% of the bid amount)

KNOW ALL MEN BY THESE PRESENTS: That, Layne Christensen Company, (hereinafter "Principal"), as Principal, and Travelers Casualty and Surety Company of America (hereinafter "Surety"), a corporation organized and existing under the laws of the State of Connecticut, with its principal offices in 1 Tower Square Hartford, CT 06183, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, held and firmly bound unto City of Chandler, AZ, (hereinafter "Obligee"), as Obligee, in the amount of Ten Percent (10%) of the amount of the bid of Principal, submitted by Principal to the Obligee for the work described below, for the payment of which sum, the Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for construction of:

Hunt Highway Well
WA2405.401

NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal and the Principal shall enter into an agreement with the Obligee in accordance with the terms of the proposal and give the bonds and certificates of insurance as specified in the agreement document with good and sufficient surety for the faithful performance of the agreement and for the prompt payment of labor and materials furnished in the prosecution of the agreement, or in the event of the failure of the Principal to enter into the agreement and give the bonds and certificates of insurance, if the Principal pays to the Obligee the difference not to exceed the penalty of the bond between the amount specified in the proposal and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by the proposal then this obligation is void. Otherwise it remains in full force and effect provided, however, that this bond is executed pursuant to the provisions of Section 34-201, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of that section to the extent as if it were copied at length herein.

Witness our hands this 10th day of August, 20 26

Layne Christensen Company	Travelers Casualty and Surety Company of America
Principal SEAL	**SURETY** SEAL
By: Robert Hausladen	By: /Isabel Barron, Attorney-In-Fact
	Attorney-in-Fact
Its: Account Manager	Alliant Insurance Services, Inc.
	AGENCY OF RECORD
	560 Mission Street, 6th Floor, San Francisco, CA 94105
	AGENCY ADDRESS

LAYNE CHRISTENSEN COMPANY CORPORATE SEAL MAY 19, 1981 DELAWARE

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA SEAL

CITY OF CHANDLER
CHANDLER, ARIZONA

Rev. 11/28/22

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and the Companies do hereby make, constitute and appoint **Isabel Barron** of **WATSONVILLE**, **California**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **13th** day of **May, 2026.**

SEAL SEAL SEAL

State of Connecticut

By: _____
Bryce Grissom, Senior Vice President

City of Hartford ss.

On this the **13th** day of **May, 2026**, before me personally appeared **Bryce Grissom**, who acknowledged himself to be the Senior Vice President, Surety, Bond & Specialty Insurance, of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **31st** day of **March, 2031**

NOTARY PUBLIC

_____
Marie E. Sorensen, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **10th** day of **August**, **2026**.

SEAL SEAL SEAL

_____
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.

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Hunt Highway Well
WA2405.401

PROPOSAL ACKNOWLEDGEMENT

PROPOSAL to the City Engineer of the City of Chandler,
In compliance with the Advertisement for Bids, the undersigned bidder:

Having examined the agreement documents, site of work, and being familiar with the conditions to be met, hereby submits the following Proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed and agrees to execute the agreement documents and furnish the required bonds and certificates of insurance for the completion of said work, at the locations and for the prices set forth on the inside pages of this form.

Understands that construction of this project shall be in accordance with all applicable Uniform Standard Specifications and Standard Details except as otherwise required by the Project Plans and Project Specific Provisions.

Understands that the Proposal shall be submitted with a Proposal guarantee of cash, certified check, cashier's check, or surety bond for an amount of not less than ten percent (10%) of the amount bid.

Agrees that upon receipt of Notice of Award from the City of Chandler, the undersigned bidder will execute the agreement documents.

Work shall be completed within 180 consecutive calendar days, beginning with the day following the starting date specified in the Notice to Proceed. Said Notice will be issued in accordance with the Project Specific Provisions "NOTICE TO PROCEED," or, when, in the opinion of the Engineer, sufficient materials are, or will be available for the continuous prosecution of the work.

Acknowledges that bid prices submitted include all applicable sales and/or use taxes, and no further compensation will be approved for these items.

The Bidder hereby acknowledges receipt of and agrees that the submitter's Proposal is based on the following Addenda:

Addendum	Date Received	Addendum No.	Date Received
1	8/12/2026	1	8/12/26

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PROPOSAL ACKNOWLEDGEMENT

THIS BID IS SUBMITTED BY: Layne Christensen Company

a corporation organized under the laws of the State of Delaware; a partnership consisting of _____; or individual trading as _____

and is the holder of an Arizona State Contractor's License: 071734

ATTACH PHOTOCOPY

Classification A-4 No. 071734

Failure to fill in the information above, regarding the bidder being a holder of Arizona State Contractor's License is grounds for rejection of the bid.

Joint venture bid proposals will not be accepted for projects bidding in the amount (for base bid) of less than $5 million dollars.

Contractors are reminded it is a violation of State law to submit a bid if not properly licensed. Bids submitted without designating the Contractor's license classification and number, in the spaces provided above, shall be rejected. Bids submitted by Contractors without the required license shall be rejected.

Contractor acknowledges by signing below that bid prices submitted include all applicable sales and/or use taxes, and no further compensation shall be approved for these items. If there is a conflict between the unit bid price and the unit price extension for a particular pay item, the unit prices shall govern, per MAG 102.5. Also, per MAG 102.7, a proposal shall be considered irregular and may be rejected if there are unauthorized additions, statements, conditional or alternate bids, or irregularities of any kind.

Respectfully submitted,

Layne Christensen Company
Firm

48-0920712
Federal Tax ID Number

12030 E Riggs Rd. Chandler, AZ 85249
Address City, State and Zip Code

480-662-3551
Phone

By (Signature Required)

Robert Hausladen, Account Manager
Name and Title (Print)

robert.hausladen@gcinc.com
Email Address

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

NAME OF BIDDER: Layne Christensen Company

CITY OF CHANDLER

HUNT HIGHWAY WELL

Project No. WW2405.101

Date of Rig Availability: September 1, 2026

BID SCHEDULE

EMR Rating: 0.72

NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	EXTENDED PRICE
A1	Site Preparation	Lump Sum	1	13,000.00	$ 13,000.00
A2	Mobilization / Demobilization	Lump Sum	1	128,000.00	$ 128,000.00
A3	Noise Control	Lin Ft	680	140.00	$ 95,200.00
A4	Surface casing construction	Lump Sum	1	55,000.00	$ 55,000.00
A5	Drill Minimum 16-inch diameter (minimum) pilot borehole	Lin Ft	1,441	125.00	$ 180,125.00
A6	Geophysical logging	Lump Sum	1	25,000.00	$ 25,000.00
A7	Formation Water Quality Sampling and Testing	Samples	8	24,000.00	$ 192,000.00
A8	Ream borehole to 28-inch diameter	Lin Ft	1,441	147.00	$ 211,827.00
A9	18-inch ID, 304L, 0.375-inch wall 304L SS blank well casing	Lin Ft	822	600.00	$ 493,200.00
A10	18.75-inch ID, 304L SS louvered "Ful Flo" screen	Lin Ft	670	850.00	$ 569,500.00
A11	2-inch ID 304L SS sounding tube (Sch 80)	Lin Ft	1,152	38.00	$ 43,776.00
A12	3-inch ID 304L SS gravel feed tube (Sch 40)	Lin Ft	787	40.00	$ 31,480.00
A13	Installation of 18.75-inch well casing and screen	Lin Ft	1,492	18.00	$ 26,856.00
A14	Installation sounding tube	Lin Ft	1,152	4.00	$ 4,608.00
A15	Installation of gravel feed tube	Lin Ft	787	3.00	$ 2,361.00
A16	Bentonite seal	Cubic Ft	142	75.00	$ 10,650.00
A17	6 x 9 filter pack	Tons	108	1,150.00	$ 124,200.00
A18	Cement grout	Cubic Yard	77	875.00	$ 67,375.00
A19	Swab and air-lift development	Hourly	240	725.00	$ 174,000.00
A20	Furnish, install, and remove test pump, and ancillary equipment	Lump Sum	1	48,000.00	$ 48,000.00
A21	Pumping tests: development, step-rate and constant-rate	Hourly	80	625.00	$ 50,000.00
A22	Water Management and Discharge	Lump Sum	1	87,000.00	$ 87,000.00
A23	Plumbness & alignment test, and video survey	Each	1	4,500.00	$ 4,500.00
A24	Unavoidable delay with crew	Hourly	--	850.00	
A25	Unavoidable delay without crew	Hourly	--	575.00	
A26	Site Restoration	Lump Sum	1	14,000.00	$ 14,000.00
A27	Owners Allowance	Lump Sum	1		$ 150,000.00
				TOTAL BASE BID	$ 2,801,658.00

Note 1: Bidders must fill in all blank spaces with an entry. Bids submitted with blank spaces will be considered "Non-Responsive".

Note 2: Bids will be opened and read aloud at an open public meeting at the time and place designed in the invitation for bids. Bids will not be modified after the bid opening. A bidder withdrawing a bid after the bid opening will be deemed non-responsible and the City may make a claim against the bidder's bid bond.

Note 3: The City reserves the right to determine the low bidder based on the Base Bid with or without any Bid Alternate(s).

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SUBCONTRACTOR'S LIST FORM

HUNT HIGHWAY WELL
WA2405.401

If Bidder intends to subcontract any portion of this Agreement, the bidder must submit the name, address, and contractor's license number (if applicable) of each subcontractor, including the work component of such subcontracting. Include this form with the bid submittal documents. Prime Contractor must self-perform according to MAG Specification 108.2. Bidder may make multiple copies of this form as needed.

Company Name:	Sierrita Mining & Ranching	**Company Name:**	
Contact Name:	Norm Harris	Contact Name:	
Contact Email:	nharris@sierrita.com	Contact Email:	
Contact Phone:	520-850-5949	Contact Phone:	
Work Component:	Conductor Casing Drilling	Work Component:	
Percentage of Total Work Performed:	≈0.1%	Percentage of Total Work Performed:	

Company Name:		**Company Name:**	
Contact Name:		Contact Name:	
Contact Email:		Contact Email:	
Contact Phone:		Contact Phone:	
Work Component:		Work Component:	
Percentage of Total Work Performed:		Percentage of Total Work Performed:	

Company Name:		**Company Name:**	
Contact Name:		Contact Name:	
Contact Email:		Contact Email:	
Contact Phone:		Contact Phone:	
Work Component:		Work Component:	
Percentage of Total Work Performed:		Percentage of Total Work Performed:	
Subcontractor Total Work Performed:	$ $15,000	Overall Bid Total:	$ 2,801,658.00
Overall Prime Contractor Self-performance %:		99.9%	

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NON-COLLUSION BIDDING CERTIFICATION

(STATE OF) Arizona
ss.
(COUNTY OF) Maricopa

I, Robert Hausladen of the City of Mesa,
in the County of Maricopa and the State of Arizona, of full age,
being duly sworn according to the law of my oath depose and say that:

I am Robert Hausladen (Name) a, Account Manager (Title, Position, etc.)
of the firm of Layne Christensen Company, the Bidder making the Bid for City of Chandler, **Hunt Highway Well, City Project No. WA2405.401** and that I executed the said Bid with full authority so to do; that said Bidder has not, directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named Project; and that all statements contained in said Bid and in this affidavit are true and correct, and made with full knowledge that the City of Chandler relies upon the truth of the statements contained in said Bid and in the statements contained in this affidavit in awarding the Contract for the said Project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement of understanding, for a commission, percentage, brokerage or contingent fee, except bonafide employees or bonafide established commercial or selling agencies maintained by:

(Signature of Bidder)

Robert Hausladen, Account Manger, Layne Christensen Company
(Printed or Typed Name of Bidder)

Sworn to before me this 19th day of August, 2026, in the County of Maricopa

Maricopa, State of Arizona.

SADIE SILVA
Notary Public - State of Arizona
MARICOPA COUNTY
Commission # 673392
Expires August 22, 2028

(Notary Public)

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

CERTIFICATE OF INSURABILITY AND BONDING

I hereby certify that as Bidder to **City of Chandler Hunt Highway Well WA2405.401**, I am fully aware of the City of Chandler's Insurance and Bonding Requirements for Contractors and that by the submission of this Bid Proposal, assure the City of Chandler that I am able to produce the insurance and bonding coverage required should I be selected to be the successful bidder.

Should I be selected to be the successful bidder by the City of Chandler, and then become unable to produce the insurance and bonding coverage specified within ten working days I am fully aware and understand that my Bid Proposal will be rejected by the City of Chandler, and that I will forfeit my posted Bid Bond.

Signature of Bidder

Account Manager

Title

8/19/2026

Date

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ARIZONA DEPARTMENT OF REVENUE
PRIVILEGE TAX LICENSE

PROJECT NAME: Hunt Highway Well

PROJECT NUMBER: WA2405.401

ATTACH, TO THIS FORM, CURRENT PRIVILEGE TAX LICENSE CERTIFICATE.

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

ARIZONA DEPARTMENT OF REVENUE
LICENSE & REGISTRATION SECTION
1600 WEST MONROE
PHOENIX, ARIZONA 85007-2650

MUST BE
DISPLAYED IN A
CONSPICUOUS PLACE

TRANSACTION PRIVILEGE TAX LICENSE

-NOT TRANSFERABLE-

THIS LICENSE IS ISSUED TO THE BUSINESS NAMED BELOW FOR THE ADDRESS SHOWN. LICENSES, BY LAW, MAY NOT BE TRANSFERRED FROM ONE PERSON TO ANOTHER NOR CAN THEY BE TRANSFERRED FROM ONE LOCATION TO ANOTHER. ARIZONA LAW REQUIRES LICENSEES TO NOTIFY THE DEPARTMENT OF REVENUE IF THERE IS A CHANGE IN BUSINESS NAME, TRADE NAME, LOCATION, MAILING ADDRESS OR OWNERSHIP. IN ADDITION, WHEN BUSINESS IS DISCONTINUED OR BUSINESS LOCATION CHANGES AND A NEW LICENSE IS ISSUED, THIS LICENSE MUST BE RETURNED TO THE ARIZONA DEPARTMENT OF REVENUE.

THE LICENSEE LISTED BELOW IS LICENSED TO CONDUCT BUSINESS UPON THE CONDITION THAT TAXES ARE PAID TO THE ARIZONA DEPARTMENT OF REVENUE AS ACCRUED UNDER PROVISIONS OF ARS TITLE 42, CHAPTER 5, ARTICLE 1.

ISSUED
TO

07-246330-W

ALL communications and Reports MUST REFER to this LICENSE NO.

LAYNE INC
PO BX 383
SHAWNEE MISSION KS 66201

15 BUSINESS CODE

07-01-81 EFFECTIVE DATE

(DBA) LAYNE INC
12030 E RIGGS RD
CHANDLER AZ 85249

(REISSUE) 09-24-92 PRINT DATE

DOR 87026 (1/88)

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

IMPORTANT NOTICE
YOU MUST:

1.) REPORT DISASSOCIATION OF QUALIFYING PARTY IN WRITING WITHIN 15 DAYS. [SEE A.R.S. §32-1154(A)(18)]
2.) REPORT A CHANGE OF ADDRESS IN WRITING WITHIN 30 DAYS. [SEE A.R.S. § 32-1122(B)(1)]
3.) REPORT ANY TRANSFER OF OWNERSHIP OF 50% OR MORE IMMEDIATELY [SEE A.R.S. § 32-1151.01]
4.) REPORT ANY CHANGE IN LEGAL ENTITY, SUCH AS ANY CHANGE OF THE OWNERSHIP IN A SOLE PROPRIETORSHIP OR CHANGE OF A PARTNER IN A PARTNERSHIP OR THE CREATION OF A NEW CORPORATE ENTITY [SEE A.R.S. § 32-1124 (B)(F) § RULE R-4-9-110]

Layne Christensen Company

12030 E Riggs Rd
Chandler, AZ 85249

THIS IS YOUR IDENTIFICATION CARD
DO NOT DESTROY

LICENSE EFFECTIVE THROUGH:
STATE OF ARIZONA
Registrar of Contractors CERTIFIES THAT
June 30, 2027

Layne Christensen Company

CONTRACTORS LICENSE NO. CLASS

ROC 071734 A-4

General Commercial
Drilling

THIS CARD MUST BE PRESENTED UPON DEMAND

Tom Cole, Director

IMPORTANT NOTICE
YOU MUST:

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Layne Christensen Company

12030 E Riggs Rd
Chandler, AZ 85249

THIS IS YOUR IDENTIFICATION CARD
DO NOT DESTROY

LICENSE EFFECTIVE THROUGH:
STATE OF ARIZONA
Registrar of Contractors CERTIFIES THAT
June 30, 2027

Layne Christensen Company

CONTRACTORS LICENSE NO. CLASS

ROC 071734 A-4

General Commercial
Drilling

THIS CARD MUST BE PRESENTED UPON DEMAND

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2.) REPORT A CHANGE OF ADDRESS IN WRITING WITHIN 30 DAYS. [SEE A.R.S. § 32-1122(B)(1)]
3.) REPORT ANY TRANSFER OF OWNERSHIP OF 50% OR MORE IMMEDIATELY [SEE A.R.S. § 32-1151.01]
4.) REPORT ANY CHANGE IN LEGAL ENTITY, SUCH AS ANY CHANGE OF THE OWNERSHIP IN A SOLE PROPRIETORSHIP OR CHANGE OF A PARTNER IN A PARTNERSHIP OR THE CREATION OF A NEW CORPORATE ENTITY [SEE A.R.S. § 32-1124 (B)(F) § RULE R-4-9-110]

Layne Christensen Company

12030 E Riggs Rd
Chandler, AZ 85249

THIS IS YOUR IDENTIFICATION CARD
DO NOT DESTROY

LICENSE EFFECTIVE THROUGH:
STATE OF ARIZONA
Registrar of Contractors CERTIFIES THAT
June 30, 2027

Layne Christensen Company

CONTRACTORS LICENSE NO. CLASS

ROC 071734 A-4

General Commercial
Drilling

THIS CARD MUST BE PRESENTED UPON DEMAND

Tom Cole, Director

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

CHANDLER arizona
Community of Innovation

INVITATION TO BID

Hunt Highway Well
PROJECT NO. WA2405.401

ADDENDUM NO. 01

August 12, 2026

1. Bidder must acknowledge receipt of this addendum on the Proposal Acknowledgement page of the **BID SUBMITTAL**. This addendum, containing **4 page(s)**, is hereby incorporated into the Construction Agreement by this reference.

2. Item 3-inch ID 304L SS gravel feed tube (**Sch 80**), was revised to 3-inch ID 304L SS gravel feed tube (**Sch 40**). Use attached bidding schedule for final Bid Submittal Package (1 page).

3. See attached sign-in sheet from mandatory pre-bid meeting held on August 4, 2026 (2 pages).

4. The following questions were received, and the answers are provided for your information:

   QUESTION: Page 4 of the Invitation to Bid states, "Work must be completed within 180 consecutive days from the Notice to Proceed." Whereas page 6 Proposal Acknowledgement, states: "Work shall be completed within 300 consecutive calendar days, beginning with the day following the starting date specified in the Notice to Proceed."" - Please clarify which duration is correct?

   RESPONSE: **Work must be completed within 180 consecutive days from the Notice to Proceed. See attached revised Proposal Acknowledgement to be included in final Bid Submittal Package (1 page).**

   QUESTION: Bid Schedule No. A17 includes SiLibead filter pack - 103 Tons and Bid Schedule No. A18 includes 6 x 9 filter pack - 108 Tons. The SiLibead filter pack is not mentioned anywhere in the Technical Specifications. Please advise whether pricing is requested for both line items (one being an alternative), or if one needs to be removed?

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RESPONSE: **SiLibead filter pack removed from the bidding schedule. Use attached bidding schedule for final Bid Submittal Package (1 page).**

QUESTION: Is there a 5-ton weight limit on Hunt Highway? Will the contractor need to obtain a waiver from the city?

RESPONSE: **No waivers will be required. Public service vehicles are excluded from the weight limit. Because the contractor will be working on a city project, the vehicles associated with the work will be considered public service vehicles.**

E-mail all questions to BID.Questions@chandleraz.gov.

DIRECT CONTACT WITH SELECTION COMMITTEE MEMBERS, INCLUDING PROJECT MANAGERS AND/OR ANY OTHER CITY EMPLOYEE, OTHER THAN THE CONTRACT SERVICE REPRESENTATIVE, CONCERNING THIS RFQ, AT ANY TIME IS STRICTLY PROHIBITED.

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer
Public Works & Utilities Dept. – Capital Projects

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NAME OF BIDDER: ______

CITY OF CHANDLER

HUNT HIGHWAY WELL

Project No. WW2405.101

Date of Rig Availability: **EMR Rating:**

BID SCHEDULE

NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	EXTENDED PRICE
A1	Site Preparation	Lump Sum	1		
A2	Mobilization / Demobilization	Lump Sum	1		
A3	Noise Control	Lin Ft	680		
A4	Surface casing construction	Lump Sum	1		
A5	Drill Minimum 16-inch diameter (minimum) pilot borehole	Lin Ft	1,441		
A6	Geophysical logging	Lump Sum	1		
A7	Formation Water Quality Sampling and Testing	Samples	8		
A8	Ream borehole to 28-inch diameter	Lin Ft	1,441		
A9	18-inch ID, 304L, 0.375-inch wall 304L SS blank well casing	Lin Ft	822		
A10	18.75-inch ID, 304L SS louvered “Ful Flo” screen	Lin Ft	670		
A11	2-inch ID 304L SS sounding tube (Sch 80)	Lin Ft	1,152		
A12	3-inch ID 304L SS gravel feed tube (Sch 40)	Lin Ft	787		
A13	Installation of 18.75-inch well casing and screen	Lin Ft	1,492		
A14	Installation sounding tube	Lin Ft	1,152		
A15	Installation of gravel feed tube	Lin Ft	787		
A16	Bentonite seal	Cubic Ft	142		
A17	6 x 9 filter pack	Tons	108		
A18	Cement grout	Cubic Yard	77		
A19	Swab and air-lift development	Hourly	240		
A20	Furnish, install, and remove test pump, and ancillary equipment	Lump Sum	1		
A21	Pumping tests: development, step-rate and constant-rate	Hourly	80		
A22	Water Management and Discharge	Lump Sum	1		
A23	Plumbness & alignment test, and video survey	Each	1		
A24	Unavoidable delay with crew	Hourly	--		
A25	Unavoidable delay without crew	Hourly	--		
A26	Site Restoration	Lump Sum	1		
A27	Owners Allowance	Lump Sum	1		$ 150,000.00

TOTAL BASE BID: _____

Note 1: Bidders must fill in all blank spaces with an entry. Bids submitted with blank spaces will be considered "Non-Responsive”.

Note 2: Bids will be opened and read aloud at an open public meeting at the time and place designed in the invitation for bids. Bids will not be modified after the bid opening. A bidder withdrawing a bid after the bid opening will be deemed non-responsible and the City may make a claim against the bidder’s bid bond.

Note 3: The City reserves the right to determine the low bidder based on the Base Bid with or without any Bid Alternate(s).

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City of Chandler Capital Projects Division
Meeting Sign in Sheet

Project Name: Hunt Highway Well

Project Number: WA2405.201

Meeting Type: Mandatory Pre-Bid Meeting

Meeting Date: 8-04-2026 Time: 8:00 AM Location: NE Intersection of E Hunt HWY and S Cooper Rd

Name	Company	Email	Phone
Tyler Johnson	KP Ventures Well Drilling & Pump Co. LLC	TylerJ@kpvent.com	928-301-1128
Richard Martinez	Hydro Resources	rmartinez@hydroresources.com	303-775-9319
Robert Hausladen	Layne Christensen	Robert.hausladen@gcinc.com	480-662-3551
Noah Horn	Stewart Brothers Drilling Company	noah@stewartbrothers.com	325-513-4487
Mike Lister	Mike's Drilling, LLC	mike@mikesdDrillingAZ.com	520 490 0399
Marcos Espinosa	COC Traffic	Marcos.espinosa@chandleraz.gov	480-742-3573
Dan Yalda	COC Traffic	Dan.yalda@chandleraz.gov	480.212.6204
Trent Williams	PW&U Water Production	Trent.williams@chandleraz.gov	480.650.1140
Russ Slotnick	COC – CIP CM Services	Russ.slotnick@chandleraz.gov	480.215.9261
Rochelle Destrampe	Matrix	rdestrampe@mnwe.com	602-570-8581

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Blake McConnell	**Matrix**	**bmcconnell@mnwe.com**	**412-651-2773**
Katie Gaul	**COC – Capital Projects**	**Katie.gaul@chandleraz.gov**	**480-782-3303**

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CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT
CAPITAL PROJECTS DIVISION

CONSTRUCTION AGREEMENT

HUNT HIGHWAY WELL
CITY PROJECT NO.: WA2405.401

MAYOR
KEVIN HARTKE

VICE MAYOR
ANGEL ENCINAS - VICE MAYOR

CITY COUNCIL
OD Harris Matt Orlando
Christine Ellis Jane Poston Jennifer Hawkins

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer

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CITY OF CHANDLER, ARIZONA

HUNT HIGHWAY WELL
CITY PROJECT NO.: WA2405.401

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CONSTRUCTION SERVICES AGREEMENT
PROJECT NO.: WA2405.401

This Agreement ("Agreement") is made and entered into on the _____ day of _____, 2026**,** by and between City of Chandler, an Arizona municipal corporation, hereinafter called "City" and Layne christensen company the "Contractor" designated below (City and Contractor may individually be referred to as "Party" and collectively referred to as "Parties").

City and Contractor agree as follows:

ARTICLE 1 - PARTICIPANTS AND PROJECT

CITY: CIP City Engineer: Daniel Haskins, P.E.
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
Phone: 480-782-3335 Email: Daniel.haskins@chandleraz.gov

CITY: Construction Project Manager: Russ Slotnick
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
Phone: 480-782-3411 Email: Russ.Slotnick@chandleraz.gov

Contractor:

Legal Company Name:	Layne Christensen Company
Mailing Address:	12030 East Riggs Road Chandler, AZ 85249
Physical Address:	12030 East Riggs Road Chandler, AZ 85249
Arizona Roc No.:	071734
Federal Tax Id No.:	48-0920712
State Where Organized:	Delaware
Business Organization:	Corporation
Statutory Agent Name:	C T CORPORATION SYSTEM
Statutory Agent Mailing Address:	3800 North Central Avenue, Suite 460 Phoenix, AZ 85012
Statutory Agent Physical Address:	3800 North Central Avenue, Suite 460 Phoenix, AZ 85012

Contractor's Authorized Project Representative:

Name:	Michael Magnin
Title:	General Manager
Phone:	812-240-3730
Email:	Michael.Magnin@gcinc.com

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PROJECT DESCRIPTION:

Drilling and completion of one potable water production well using the reverse circulation rotary drilling method for the City of Chandler to a depth of approximately 1,500 feet below ground surface. The proposed well (Well), is located at the northeast corner of Hunt Highway and Cooper Road, Chandler, Arizona.

PROJECT LOCATION:

2022 East Hunt Highway, Chandler, AZ 85249.

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ARTICLE 2 - AGREEMENT DOCUMENTS

2.1 AGREEMENT DOCUMENTS

The Agreement between City and Contractor will consist of the following Agreement Documents:

1. This Construction Services Agreement and all of its Exhibits, including Project Plans and Technical Specifications.
2. General Conditions and General Conditions Appendices, incorporated by reference.
3. Project Specific Special Provisions as set forth in Exhibit A, incorporated by reference.
4. Project Bid Proposal.

2.2 In the event of any inconsistency, conflict, or ambiguity between or among the Agreement Documents, the Agreement Documents will take precedence as described in Section 14.1.4 of the General Conditions.

2.3 DEFINITIONS

The definitions in Section 2 of the General Conditions apply to all the Agreement Documents, including this Agreement.

ARTICLE 3 - CONSTRUCTION SERVICES

3.1 GENERAL

3.1.1 Scope of Work. All terms and conditions are set forth in the Agreement. Any terms and conditions and exceptions noted in the Contractor's proposal or other documents do not apply unless agreed to in this Agreement or an approved addendum.

3.1.2 Contractor agrees this is a Unit Price Agreement. Contractor agrees at its own cost and expense, to do all Work necessary required to fully, timely and properly complete the construction of the Project in strict accordance with the Agreement Documents in a good and workmanlike manner, free and clear of all claims, liens, and charges whatsoever, in the manner and under the conditions specified, within the Agreement time.

3.1.3 Contractor must provide all of the labor and materials, and perform the Work in accordance with Section 4 of the General Conditions. Some, but not all, of the major components of the Construction Services and the corresponding subsections of Section 4 of the General Conditions are set forth below.

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3.1.4 At all times relevant to this Agreement and performance of the Work, the Contactor must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project and the Agreement, including, without limitation, those set forth on attached Exhibit A.

3.1.5 Contractor must perform the Work under this Agreement using only those firms, team members and individuals designated by Contractor consistent with Contractor's accepted Bid, or otherwise, approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

3.1.6 Contractor must comply with all terms and conditions of the General Conditions.

3.1.7 In the event of a conflict between this Agreement and the General Conditions or an exhibit hereto or appendix thereto, the terms of this Agreement will control.

3.1.8 Ownership of Work Product. Notwithstanding anything to the contrary in this Agreement, all Work Product prepared or otherwise created in connection with the performance of this Agreement, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. § 101 (Copyright Act). If for any reason, any such Work is found not to be a Work Made for Hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

3.2 CONTRACTOR'S PRE-AGREEMENT AND PRE-WORK DELIVERABLES

3.2.1 The Contractor must provide the Deliverables in accordance with Section 4.2 of the General Conditions.

3.3 PRE-CONSTRUCTION CONFERENCE

Contractor must attend the Pre-Construction Conference in accordance with Section 4.3 of the General Conditions.

3.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

Contractor must perform the Work in accordance with Section 4.4 of the General Conditions.

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3.5 **CONTROL OF THE PROJECT SITE**

Contractor must control and maintain the Project Site in accordance with Section 4.5 of the General Conditions.

3.6 **PROJECT SAFETY**

Contractor must implement and enforce Project safety in accordance with Section 4.6 of the General Conditions.

3.7 **MATERIALS QUALITY, SUBSTITUTIONS AND SHOP DRAWINGS**

Contractor must provide materials testing and submit substitute materials and Shop Drawings in accordance with Section 4.7 of the General Conditions.

3.8 **PROJECT RECORD DOCUMENTS**

Contractor must maintain and make available the Project Record Documents in accordance with Section 4.8 of the General Conditions.

3.9 **WARRANTY AND CORRECTION OF DEFECTIVE WORK**

Contractor must provide warranties and correct defective Work in accordance with Section 4.9 of the General Conditions.

ARTICLE 4 - CITY RESPONSIBILITIES

4.1 City will have the responsibilities, and provide the information specified in, and subject to the conditions set forth in, Section 5 of the General Conditions.

ARTICLE 5 - AGREEMENT TIME

5.1 **GENERAL**

5.1.1 The total Agreement Duration is 180 Calendar Days (including Substantial Completion by 150 Calendars Days and Final Acceptance by 180 Calendar Days).

5.1.2 The Agreement Time will start with the Notice to Proceed (NTP) and end with Final Acceptance, as set forth in Article 5.4 below.

5.1.3 The Agreement Time will be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through Final Acceptance within the Agreement Time.

5.1.4 Time is of the essence of this Agreement for the Project, and for each phase and designated Milestone thereof.

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5.1.5 Failure on the part of Contractor to adhere to the approved Project Schedule will be deemed a material breach and sufficient grounds for termination of this Agreement by City.

5.2 PROJECT SCHEDULE

5.2.1 The Project Schedule will be updated and maintained throughout Contractor's performance under this Agreement in accordance with Section 6.2 of the General Conditions.

5.3 SUBSTANTIAL COMPLETION

Substantial Completion must be achieved no later than the Substantial Completion Date set forth in the Project Schedule. Substantial Completion will be determined in accordance with Section 6.3 of the General Conditions.

5.4 FINAL ACCEPTANCE

5.4.1 Final Acceptance will be obtained within the time period set forth in the Project Schedule.

5.4.2 Final Acceptance will be issued pursuant to Section 6.5 of the General Conditions.

5.5 LIQUIDATED DAMAGES

5.5.1 Substantial Completion Liquidated Damages. Contractor acknowledges and agrees that if Contractor fails to obtain Substantial Completion of the Work within the Agreement Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and Contractor agree that if Contractor fails to achieve Substantial Completion of the Work within the Agreement Time, City will be entitled to retain or recover from Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

5.5.2 Final Acceptance Liquidated Damages. For the same reasons set forth in Article 5.5.1 above, City and Contractor further agree that if Contractor fails to achieve Final Acceptance of the Work within the Agreement Time, City will be entitled to retain or recover from Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under the Agreement.

5.5.3 MAG Liquidated Damages. Liquidated damages provisions in MAG § 108.9 will apply.

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5.5.4 City may deduct liquidated damages described in this Article 5.5 from any unpaid amounts then or thereafter due Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due Contractor will be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable by Contractor.

5.6 MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES ONLY

5.6.1 Contractor and City waive claims against each other for consequential damages arising out of or relating to this Agreement. This mutual waiver includes.

1. Damages incurred by City for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

2. Damages incurred by Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

5.6.2 This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement. Nothing contained in this Article 5.6 will be deemed to preclude an award of liquidated damages, when applicable, in accordance with Article 5.5 above.

5.6.3 Nothing herein will be deemed to constitute a waiver of any other remedy available to City in the event of Contractor's default under this Agreement prior to full performance of the Work including, as applicable, specific performance or completion of the Work on behalf of Contractor, the cost and expense of which will be offset against any monies then or thereafter due to Contractor (if any) and otherwise immediately reimbursed to City by Contractor.

ARTICLE 6 - AGREEMENT PRICE

6.1 AGREEMENT PRICE

6.1.1 In exchange for Contractor's full, timely, and acceptable performances and construction of the Work under this Agreement, and subject to all of the terms of this Agreement, City will pay Contractor the "Agreement Price," which is $2,801,658.00.

6.1.2 The Agreement Price is all-inclusive and specifically includes all fees, cost, insurance and bond premiums, and taxes of any type necessary to fully, properly and timely perform and construct Work.

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6.2 **CHANGES TO AGREEMENT PRICE**
Shall be determined under Section 9 of the General Conditions.

ARTICLE 7 - PAYMENT

Payments will be made to Contractor in accordance with Section 8 of the General Conditions.

ARTICLE 8 - CHANGES TO THE AGREEMENT

Changes to the Agreement may be made in strict accordance with Section 9 of the General Conditions.

ARTICLE 9 - SUSPENSION AND TERMINATION

This Agreement may be suspended or terminated in accordance with Section 10 of the General Conditions.

ARTICLE 10 - INSURANCE AND BONDS

10.1 Contractor must provide insurance in accordance with Sections 11.1 through 11.3 of the General Conditions. Contractor must provide proof of such insurance and all required endorsements in forms acceptable to City prior to commencing any Work under this Agreement.

10.2 Contractor must provide performance and payment bonds to City in Accordance with Section 11.4 of the General Conditions and A.R.S. § 34-222.

10.3 Failure to provide proof of insurance and the required endorsements, or the required bonds, in forms acceptable to City, will be a material breach and grounds for termination for cause of this Agreement.

ARTICLE 11 - INDEMNIFICATION

Contractor must have and assume the indemnity obligations set forth in Section 12 of the General Conditions.

ARTICLE 12 - DISPUTE RESOLUTION

Any claims or disputes relating to this Agreement will be resolved according to the dispute resolution process set forth in Section 13 of, and Appendix 6 to, the General Conditions.

ARTICLE 13 - FORCED LABOR OF ETHNIC UYGHURS PROHIBITED By entering into this Agreement, Contractor certifies and agrees Contractor does not currently use and will not use for the term of this Agreement: (i) the forced labor of ethnic Uyghurs in the People's Republic of China; or (ii) any goods or services produced by the forced labor of ethnic

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Uyghurs in the People's Republic of China; or (iii) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

SIGNATURE PAGE TO FOLLOW

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement through their duly authorized representatives and bind their respective entitles as of the effective date.

"CITY"
CITY OF CHANDLER

Mayor

RECOMMENDED BY:

Daniel Haskins September 17, 2026
Daniel Haskins, P.E.
CIP City Engineer

APPROVED AS TO FORM:

City Attorney

ATTEST:

City Clerk Seal

"CONTRACTOR"
LAYNE CHRISTENSEN COMPANY

Michael Magnin September 17, 2026
Signature Date

Michael Magnin
Print Name

General Manager
Title

Michael.Magnin@gcinc.com
Signer Email Address

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EXHIBIT A

PROJECT SPECIFIC
SPECIAL PROVISIONS

4.2.7 Aerial Construction Photography

General Conditions Section 4 Subsections 4.2.7.1 & 4.2.7.2 are not applicable to this project.

4.2.8 Government Approvals and Permits

General Conditions Section 4 Subsection 4.2.8.1, City permit fees will be paid internally by the City and all other fees will be the responsibility of the Contractor.

Subletting of Agreement

Contractor must perform, with his own organization, work amounting to not less than 50 percent of the total Agreement cost.

Failure to submit Subcontractor's List Form, demonstrating self-performance not less than 50 percent of the total Agreement cost, will cause the bid to be deemed non-responsive.

Bidders should contact the Arizona Registrar of Contractors for information on license requirements.

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EXHIBIT B

GENERAL CONDITIONS

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CHANDLER
arizona
Community of Innovation

GENERAL CONDITIONS

Approved date: July 20, 2022

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

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SECTION 1 - SCOPE OF THESE GENERAL CONDITIONS

These General Conditions encompass provisions that apply, and are incorporated into all construction Agreements entered into by the City of Chandler, unless otherwise specifically excluded in the executed Agreement.

SECTION 2 - GENERAL DEFINITIONS

Allowance: A specific amount for a specific item of Work, if any, that City agrees has not been sufficiently designed, detailed, or selected (including design changes from 90% to 100% as authorized by and at the discretion of the City) at the time the Agreement Price is agreed to for Contractor to provide a definitive price.

Alternate Systems Evaluations or Alternative Analysis: Alternatives for design, means and methods or other scope considerations that are evaluated using value analysis principles and have the potential to reduce construction costs while still delivering a quality and functional Project that meets City requirements.

Change Order: A written instrument issued after execution of the Agreement Documents signed by City and Contractor, stating their agreement upon all of the following: the addition, deletion or revision in the scope of services or deliverables; the amount of the adjustment to the Agreement Price, the extent of the adjustment to the Agreement Time, or modifications of other agreement terms. The Agreement Price and the Agreement Time may be changed only by Change Order.

Consultant: Person or firm that provides professional services.

City (Owner or OWNER): City of Chandler, a municipal corporation, with whom Contractor has entered into the Agreement and for whom the Work or Services are to be provided pursuant to the Agreement(s).

Contingent Bid Items: This is a minor bid item which is likely, but not certain, to occur during the course of work. If the Engineer determines that this work is required, the Contractor will accomplish the work and payment will be made based on the contingent unit bid price included in the proposal. Since the quantity listed in the proposal is primarily for bid comparison, the amount of work required by the Engineer may vary materially from this.

Agreement: The written agreement executed between City and Contractor, including all of the Agreement Documents.

Agreement Documents: The documents which together form the Agreement between City and Contractor, as identified in Article 2 of the Agreement, or are otherwise incorporated into the Agreement, including the Agreement, the exhibits thereto, these General Conditions, any Notice to Proceed, and any Job Order (if applicable), the Plans and Specifications, Project Schedule, written and properly executed Change Orders, MAG Specifications and City's amendments thereto, and any other documents so designated in the Agreement.

Agreement Price: The agreed-upon price to be paid to Contractor for full, timely, and acceptable completion of the Work or Services under the terms of the Agreement.

Agreement Time(s): The number of calendar days or the dates related to the applicable phase, Substantial Completion, or Final Acceptance as stated in Agreement Documents. Agreement Time starts

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with the Notice to Proceed (NTP) and ends with Final Acceptance. The Agreement Time is set forth in the Agreement and is based upon the Project Schedule agreed to by City in writing.

Contractor: The person or business association with whom City has entered into an agreement for construction related Work or Services in relation to the Project at issue.

Contractor Payment Request: The form that is accepted by City and used by Contractor in requesting progress payments or final payment and which must include such supporting documentation as is required by the Agreement Documents or City.

Construction Budget: The City's budget for construction of the Project.

Construction Documents: The Plans, Specifications, and Drawings prepared and issued by the Design Professional and approved by City for construction, meaning the documents are sealed by the Design Professional (as required), acceptable for permitting and incorporated into the Agreement by this reference. All amendments and modifications to the Construction Documents must be approved in writing by City prior to incorporation into the Agreement.

Cost of the Work: The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs will be at rates not higher than the standard paid at the place of the Project except with prior consent of City.

Critical Path Method (CPM): A scheduling technique which identifies the logical sequence of the activities occurring in a Construction Project, the anticipated time required to complete each activity in the Project, and the activities that must be completed on schedule to finish the Project within the anticipated time. Typically, activities are arranged in a network that shows both activities and their dependencies. CPM is also used as a management technique which enables contracting parties to predict when activities may occur so that resources can be effectively used and limitations can be identified.

Critical Path: Critical Path is the sequence of project network activities which add up to the longest overall duration. Once established in the Project Schedule, the Critical Path for the Project must not be changed without prior written approval of City.

Day: Calendar day(s) unless otherwise specifically stated in the Agreement Documents.

Design Professional: The qualified, licensed person, firm or corporation who furnishes design and construction administration services required under the Agreement Documents. These services may include, but are not limited to: development of Construction Drawings and Documents, review of Contractor Submittal(s), review of and response to Requests for Information, approval and certification of progress payment applications, construction administration, and construction agreement close out.

Differing Site Conditions: Concealed or latent physical conditions or subsurface conditions at the Site that, (i) materially differ from the conditions indicated in the Agreement Documents, or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work at the general area of the Site. Caliche, rock, hard-digging or sandy/silty soil encountered on a project is not considered a "Differing Site Condition."

Drawings (Plans): Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by Contractor during the construction phase and which have been prepared

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or approved by the Design Professional and City. These documents include Drawings that have reached a sufficient state of completion and released by Design Professional solely for the purposes of review and use in performing constructability or bid-ability reviews by Contractor and in preparing cost estimates (e.g. Master Planning and Programming, Schematic Design, Design Development, and Construction Drawings), but *"not for construction*." Shop Drawings are not Drawings as so defined.

Final Acceptance: The City's acceptance of the facility or project from the Contractor after all Work is completed, tested, and inspected in accordance with the Agreement requirements. Final Acceptance results in a Letter of Acceptance (LOA).

Fixed Price: A fixed price or amount for an Agreement Price, Scope of Work, materials, or other item under an Agreement, Change Order, or other agreement, which City agrees, in writing, to pay instead of the actual cost.

Float: The number of Days by which an activity can be delayed without lengthening the Critical Path and extending the Agreement Time. Unless otherwise expressly agreed in writing, all Float belongs to City.

Laws, Regulations, or Legal Requirements: Any and all applicable laws, rules, regulations, ordinances, codes and orders applicable to the Project of any and all governmental bodies, agencies, authorities and courts having jurisdiction and any applicable provisions of the Development Agreement for the Project (if any), including, without limitation, those provisions relating to the design and construction of the Project.

Line Item: The individual elements of Work identified on a bid or other schedule and associated with a price or a unit price and quantity particular to that individual element of the Work. Also refers to individual items of work within the Schedule of Values.

Liquidated Damages: Designated damages for the City to collect as compensation upon a specific breach (example: late delivery).

Long-Lead Item: Long-lead item refers to the equipment, product, or system that is identified at the earliest stage of a project to have a delivery time long enough to affect directly the Critical Path/the overall lead time of the project.

MAG: The Maricopa Association of Governments.

MAG Specifications: The most current version of the Uniform Standard Specifications for Public Works Construction published by MAG.

MAG Standard Details: The most current version of the Uniform Standard Details as published by MAG.

Minor change: A change in the Work having no impact on cost or time or the City-approved design intent, as determined by City.

Notice to Proceed (NTP): A written notice given by City to Contractor fixing the date on which Contractor will start to perform Contractor's obligations under the Agreement.

Project: The Project specified in the Agreement (including a Job Order).

Project Manager: The Project Manager designated in Article 1 of the Agreement, or any successor thereto

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designated by City. The Project Manager has the authority to act on behalf of City, as delineated and limited by the Agreement Documents and applicable law. And City will communicate with Contractor through the Project Manager. However, the Project Manager has no authority to bind City or City Council in contravention of any City code, State or Federal statute or regulation, or these General Conditions.

Project Schedule: The schedule for the completion of the Project agreed to and required by City.

Project Specific Conditions: Additional conditions which apply to the specific Project and Scope of Work which are set forth in Exhibit D of the Agreement.

Project Team: The Project Team consisting of the Design Professional, Contractor, Project Manager, and such others as City may designate.

Punch List: The list initially prepared by Contractor pursuant to the Agreement Documents, reviewed and supplemented by the Project Manager (and at the sole option of the Project Manager, the Design Professional) and approved by City containing items of incomplete work not impacting Substantial Completion, if allowed for under the Agreement, and to be completed or corrected by Contractor after Substantial Completion and before Final Acceptance in accordance with the Agreement Documents.

Quality Assurance (QA) Testing: Testing performed to verify the accuracy and applicability of the QC testing results and to ascertain that the materials installed meet the specified levels of quality in accordance with the Agreement Documents.

Quality Control (QC) Testing: Testing performed to assure that the materials installed comply with the requirements in the Agreement Documents.

Requests for Information (RFIs): Formal written request from Contractor to City or Design Professional for the Project seeking clarification or additional information needed for Contractor to properly complete the Work or Services under the Agreement. City may require RFI's to be submitted on a specific form or in a specified format.

Schedule of Values (SOV): The specified document prepared by Contractor, and approved and accepted by City, which divides the Agreement Price into pay items, such that the sum of all pay items equals the Agreement Price for the construction phase Work, or for any portion of the Work having a separate specified Agreement Price.

Scope of Work: The scope of work agreed to or required by City and incorporated into the Agreement as Exhibit A.

Shop Drawings: All drawings, diagrams, schedules and other data specifically prepared for the Work by Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

Site: The land or premises on which the Project is located.

Specifications: The part(s) of the Agreement Documents for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto. Where specified, the Project must be constructed using the current Uniform Standard Specifications and Details for Public Works

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Construction as furnished by the Maricopa Association of Governments, as amended by City.

Subconsultant: A person, firm or corporation having an Agreement with Consultant/Contractor to furnish services required as its independent professional associate or consultant with respect to the Project.

Subcontractor: An individual or firm having a direct Agreement with Contractor or any other individual or firm having an Agreement with the aforesaid contractors at any tier, who undertakes to perform a part of pre-construction services or construction phase Work at the Site for which Contractor is responsible. Subcontractors must be selected through the Subcontractor selection process described in the Agreement Documents, if any.

Substantial Completion: The date when the City determines that the Work (or separable units of Phases as provided in the Agreement Documents) is essentially and satisfactorily complete in accordance with the Agreement Documents such that the Project is ready for use by the City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories, and similar elements are installed in the proper manner and in operating condition, inspected, and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air conditioning, vertical transportation, and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other work as applicable, has been performed to a similar state of essential and satisfactory completion.

Supplier: A manufacturer, fabricator, distributor, or vendor having a direct Agreement with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by Contractor or any Subcontractor.

Total Float: Number of Days by which pre-construction services or construction phase Work or any part of the same may be delayed without necessarily extending a pertinent Agreement Time or schedule milestone in the Project Schedule.

Work: The entire completion of construction or the various separately identifiable parts thereof, required to be furnished during the construction phase. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials, resources and equipment into the construction, and performing or furnishing services and documents as required by the Agreement Documents for the construction phase.

Writing: Typing, printing, photography and other modes of representing or reproducing words in a visible form, including email, and expressions.

SECTION 3 - STANDARD SPECIFICATIONS AND DETAILS

3.1 City operates under the latest revision of the MAG Specifications and MAG Standard Details as amended by City. City's current amendment to the MAG Specifications, part of the City's Unified Development Manual, may be found and downloaded from City's website at http://www.chandleraz.gov.

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3.2 Copies of the MAG Specifications and MAG Standard Details are available at the Maricopa Association of Governments office, 302 N. 1st Avenue, Suite 300, Phoenix, Arizona. They may also be downloaded from their website at: http://www.azmag.gov/Newsroom/Publications

3.3 The MAG Specifications and Standard Details and City's amendments thereto are incorporated into the Agreement by this reference.

SECTION 4 - CONTRACTOR'S RESPONSIBILITIES FOR CONSTRUCTION SERVICES

4.1 **GENERAL**

4.1.1 Contractor must construct the Work in accordance with the Agreement Documents and as outlined in Exhibit A of the Agreement to the satisfaction of City, exercising the degree of professional care, skill, diligence, quality and judgment that a professional construction manager engaged, experienced and specializing in the construction management of construction and facilities of similar scope, function, size, quality, complexity and detail in urban areas throughout the United States comparable to Chandler, Arizona would exercise at such time, under similar conditions. Contractor must, at all times, perform the Work in conformance with sound and generally accepted engineering principles and construction management and construction contracting practices.

4.1.2 If Contractor observes errors, discrepancies or omissions in the Agreement Documents, Contractor must promptly notify the Design Professional and City and request clarification. If Contractor, with the exercise of reasonable care, should have recognized such error, inconsistency, omission, or difference and fails to report it to City, and if Contractor proceeds with the Work affected by such observed errors, discrepancies or omissions, without receiving such clarifications, Contractor does so at its own risk and will be liable to City for damages resulting from proceeding without clarification.

4.1.3 Project Team and agents of each of them, testing agencies and governmental agencies with jurisdictional interests will be provided access to the Work at reasonable times for their observation, inspection, and testing. Contractor must provide proper and safe conditions for such access.

4.1.4 Contractor must comply with, and require all Subcontractors to comply with, the Arizona Contractors' license laws, including all requirements with respect to being duly registered and licensed.

4.1.5 Contractor must ensure that all employees performing any Work for which Contractor is responsible have a legal right to live and work in the United States. In addition, all compensation of any such employee must meet all applicable requirements of the Fair Labor Standards Act (FLSA) and Federal Minimum Wage laws.

4.1.6 Contractor must comply with the Immigration Reform and Control Act of 1986 (IRCA). Contractor understands and acknowledges the applicability of the IRCA activities. Contractor agrees to comply with the IRCA while performing their work and to permit City inspection of Contractor personnel records to verify such compliance.

4.1.7 Pursuant to MAG Specifications §§ 107.4, Contractor must report immediately any discovery of archeological ruins or artifacts. Excavation must stop immediately so that City can decide on the pertinent steps to follow such discovery.

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4.1.8 All property owners that may be affected by the proposed construction activities must be notified of the scope, duration of the construction activities and possible interference with their day-to-day activities by Contractor prior to start of construction. In addition, individual residential or commercial interferences, such as driveway restrictions, water outages, and all other Work adjacent to residence/business, require 48-hour notification in advance of specific adjoining Work. Notification may be through door hangers or other procedures approved by the City.

4.1.9 Access must be maintained to adjacent properties at all times during construction. Where property has more than one point of access, no more than one access will be restricted or closed at any one time. Access to adjacent private driveways will be maintained during all non-working hours.

4.1.10 Contractor must furnish and erect construction signs in accordance with Project Specifications. The signs must be professionally prepared and subject to approval by City, must be maintained by Contractor for the duration of the project, and must be removed by Contractor during the final project clean up.

4.1.11 The number of signs required, the size, shape, installation requirements and information to be included for construction signs is established on the detail sheet, provided, however, signs must be a minimum of 4 foot by 8 foot and must be installed so that the bottom of the sign is at least 4 foot above grade. No direct payment will be made for furnishing and erecting construction signs. The cost thereof must be included in other items for which direct payment is made. Sign locations will be determined by City.

4.1.12 All required construction signs must be installed by Contractor within 7 Days of Notice to Proceed.

4.1.13 The Work to be accomplished under these Agreement Documents has been designed for City by a Design Professional retained by City for this purpose. It is understood that normal construction Administration for the purpose of interpretation of the Agreement Documents is provided by City. Should any services of the Design Professional be required to assist in the corrections of errors or omissions by Contractor, or services of the Design Professional be required because of changes in structure or equipment where Contractor has requested approval of substitute methods or material, or any other items detailed herein below, those services will be provided by the Design Professional at the standard hourly rates previously negotiated with City and must be paid for by the Contractor.

4.1.14 Contractor must reimburse City for costs incurred by the Design Professional for additional services to the Project through no fault of City or the Design Professional including, but not limited to, the following conditions:

a. Additional Site visits, investigations, inspections, design work or reports by the Design Professional which are required due to damages to existing facilities or completed Work caused by the Contractor in his performance, Contractor's negligence, or Contractor's Work which is rejected as defective or as failing to conform to the Agreement Documents;

b. Design Professional construction phase services rendered on the project during the time the project remains incomplete after the Agreement date of final completion will be charged to Contractor at a rate previously negotiated City; and

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c. All retesting required due to the failure of Contractor's Work to meet the requirements of the Agreement Documents will be at Contractor's expense. All standby and travel time by the City's testing lab, the Design Professional or City due to Contractor's inability to be prepared for testing at the agreed upon time will be at the Contractor's expense.

4.1.15 City may withhold from any payment otherwise due to Contractor any amounts necessary to pay the Design Professional for such additional services as provided herein above.

4.1.16 Contractor will not be required to bear additional costs incurred by City due to errors by the Design Professional.

4.2 **CONTRACTOR'S PRE-AGREEMENT AND PRE-WORK DELIVERABLES**

4.2.1 Prior to award of the Agreement, Contractor must execute Agreement and deliver to City. Failure to do so may delay Agreement award. Contractor must also provide to City its Contractor's License classification and number and its Federal Tax I.D. number.

4.2.2 Before beginning any Work under the Agreement, Agreement must be fully executed by City.

4.2.3 After Agreement award, City will issue to Contractor an award letter. At that time Contractor must deliver to City such bonds and certificates of insurance with endorsements in such amounts (and other evidence of insurance requested by City) required under Section 11 of these General Conditions, and as the Agreement requires.

4.2.4 As evidence of Workmen's Compensation Insurance, Contractor must, upon request, provide a letter of certification from the Industrial Commission of Arizona that Contractor is insured by the State Compensation Fund or is an authorized self-insurer or a certificate of insurance issued by an insurance company authorized by the Insurance Department of Arizona to write Workmen's Compensation and Occupational Disease Insurance in the State of Arizona.

4.2.5 Within 10 Days of the date of the executed Agreement letter issued by City, Contractor must submit to City for review and acceptance the following items:

4.2.5.1 Comprehensive construction Project Schedule including a Critical Path Method (CPM) diagram schedule as described in Section 6.2. Project Schedule must be in Microsoft Project standard file format. Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review.

4.2.5.2 Preliminary schedule of submittals and Shop Drawings. Within 10 Days of receipt of City's comments, Contractor must submit the corrected and completed schedule of Shop Drawings submissions for approval. Contractor's schedule of Shop Drawings and sample submittals will be acceptable to City if it provides a workable arrangement for reviewing and processing the required submittals.

4.2.5.3 Schedule of Values in a form specified by City reflecting the subcontracts and other categories that will be used to submit Pay Applications for the Work. The total amount of the Schedule of Values must not be greater than the Agreement Price. The Schedule of Values will be reviewed at the Pre-Construction Conference and revised by Contractor within 10 Days after Pre-Construction Conference in response to comments and questions from

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City. Once accepted by City in writing, the Schedule of Values for the Project must not be changed without the prior written approval of City.

4.2.6 Video Recording Requirement. Prior to performing any Work, Contractor must document the existing conditions of the Site, all other areas where Work will occur and all adjacent areas that may be impacted by the Work via digital video format. Contractor must video record and index all areas, features, buildings and other public and private improvements that could potentially be impacted by the Work. Video recording must be coordinated with City. When video recording private property, Contractor must also coordinate the video recording with the private property owner, if possible. Contractor must provide City with a copy of said digital video format prior to performing any Work.

4.2.7 Aerial Drone Construction Photography.

4.2.7.1 If Agreement duration is greater than 90 calendar days, Contractor must engage a professional unmanned aerial vehicle (UAV) aerial pilot to photograph the Site prior to construction mobilization, at three-month intervals during construction, and following final inspection. Drone camera specifications must meet the following minimum requirements:

a. 1-inch CMOS
b. Pixels: 20M
c. FOV 84 8.8 mm/24 mm (35 mm format equivalent) f/2.8-f/11 auto focus at 1 m-
d. For photographing: 16.9 Aspect Ratio: 5472x3078
e. For video shooting: MP4/MOV/H.264
f. FHD: 1920x1080 120p @100Mbps
g. File format: High Definition (HD) JPEG for digital photos and HD MPEG 4 for digital video.
h. All metadata to be recorded including GPS data and preserved with photographs provided.

Interval	**JPEG**
3 month intervals	At an altitude (AGL) between 70-90 ft.
3 month intervals	Images to be taken every 50-100 ft. to be determined based on project scope.

4.2.7.2 Drone photos to be taken in sequential geographical order and then organized and provided in the same manner unless otherwise specified.

4.2.7.3 Photos to be provided digitally via an online file share service and/or by a USB drive to contractor.

4.2.7.4 Drone pilots to obey ALL local (city, county, state) UAV regulations as well as FAA UAV guidelines including, but not limited to, conducting all flights during daylight hours, not exceeding maximum altitude ceilings (depending on area), not flying over people, yielding to other aircraft.

4.2.7.5 Drone pilots must fly drone within visual line of sight (VSOL) and have visual spotter when needed. Drone pilots only to operate in favorable weather conditions when minimum visibility is 3 miles or greater.

4.2.7.6 Drone pilots to conduct a preflight checklist and visually inspect the entire flight path prior to flying to ensure a safe flight.

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4.2.7.7 Airspace Authorizations. Operations in Class G airspace are allowed without air traffic control (ATC) permission. Operations in Class B, C, D and E airspace need ATC authorization. Drone pilots to schedule each flight in advance and based on airspace if required will notify nearby airports/control towers, etc.

4.2.8 Government Approvals and Permits.

4.2.8.1 Contractor must obtain all necessary permits for the Work and pay all applicable fees, unless otherwise noted on the Plans and in the Specifications. City permit fees will be paid internally by City. For bidding purposes, an allowance for all permit fees is included in the bid schedule under the item "allowance for permit fees." The Contractor will be paid for the actual cost of the permit fees upon submitting a receipt showing the fee Contractor has paid. Excluded from the above allowance are items such as all costs incurred by the Contractor in securing the permit except for the actual permit fee established by the agency, cost for all shutdowns or outages, cost for pole bracing, cost of permits for construction water, cost of construction water, cost for any additional insurance requirements, cost for any licenses, and other similar type costs. Contractor is specifically notified of the need to obtain the necessary environmental permits or file the necessary environmental and regulatory permit notices.

4.2.8.2 Copies of all permits and the associated notices must be provided to City prior to starting the permitted activity.

4.3 PRE-CONSTRUCTION CONFERENCE

4.3.1 Prior to the commencement of any Work, City will schedule a Pre-Construction Conference.

4.3.2 The purpose of this Conference is to establish a working relationship between Contractor, the utility firms, and various City agencies. The agenda will include critical elements of the Work schedule, submittal schedule, cost breakdown of major lump sum items, Payment Requests and processing, coordination with the involved utility firms, and emergency telephone numbers for all representatives involved in the course of construction.

4.3.3 Minimum attendance by Contractor at any mandatory meeting with City must be (1) Contractor's Representative, who is authorized to execute and sign documents on behalf of the firm, (2) Contractor's on-site Superintendent, and (3) Contractor's Safety Office, or other employee responsible for safety.

4.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

4.4.1 Unless otherwise provided in the Agreement Documents to be the responsibility of City or a separate Contractor, Contractor must provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Contractor to complete the Work consistent with the Agreement Documents.

4.4.2 Contractor must perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Agreement Documents. Contractor must at all times exercise complete and exclusive control over the means, methods, safety, sequences and techniques of construction.

4.4.3 Contractor's Superintendent must be present at the Site at all times that material Work

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under this Agreement is taking place. Contractor's Superintendent or designee must be present at the Site at all times any other Work under this Agreement is taking place. Superintendent must not be replaced without written notice to City. Whenever the Superintendent is not present at a particular part of the Work where the City or Design Professional may desire to inform the Contractor relative to interpretation of the Drawings and Specifications or to disapproval or rejection of materials or Work performed, the City or Design Professional may provide such information in writing to the foreman or other worker in charge of the particular part of the Work in reference to which the information is given. Information so given will be as binding as if given to the Superintendent.

4.4.4 All elements of the Work must be under the direct supervision of a foreman or his designated representative on the Site who must have the authority to take actions required to properly carry out that particular element of the Work.

4.4.5 Working Hours. Except in connection with the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise indicated, all Work at the Site must be performed during regular working hours, and Contractor will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without City's written consent given after prior written notice to City. If it will become absolutely necessary to perform Work at night or on Saturdays, Sundays or legal holidays, the City must be informed at least 24 hours in advance of the beginning of performance of such Work. Only such Work will be done at night as can be done satisfactorily as determined by the City. Good lighting and all other necessary facilities for carrying out and inspecting the Work must be provided and maintained at all points where such Work is being done. Further, unless such non-normal work hours are performed at City's request or required by the Agreement Documents, Contractor must pay to City all additional costs incurred by City by reason of such non-normal working hours. Expenses incurred by City for overtime compensation must be reimbursed by Contractor as follows: (i) City staff at the rate set forth in current City Fee Schedule as published on City website, (ii) Design Professional and staff at the standard hourly rates previously negotiated with City, and (iii) all others at actual cost plus ten percent administrative overhead. Such costs may be deducted by City from any payments due to Contractor. Provided, however, if overtime work or work during other than normal hours is at the request of City and not due to Contractor delay, City will pay the cost of City overtime expenses.

4.4.6 Where the Agreement Documents require that a particular product be installed or applied by an applicator approved by the manufacturer, it is Contractor's responsibility to ensure the Subcontractor employed for such work is approved by the manufacturer. All materials and equipment must be stored, applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Agreement Documents; but no provisions of any such instructions will be effective to impose on City of Design Professional responsibility for the means, methods, techniques, sequences or procedures of construction or for safety precautions incident thereto.

4.4.7 Before starting the Work, Contractor must carefully study and compare the various Plans, Drawings, other Agreement Documents, and Specifications relative to that portion of the Work, as well as the information furnished by City, must take field measurements of any existing conditions related to that portion of the Work and must observe any conditions at the Site affecting it. The exactness of grades, elevations, dimensions, or locations given on any Drawings, or the Work installed by other contractors, is not guaranteed by City.

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4.4.8 Before ordering materials or doing Work, Contractor and each Subcontractor must verify measurements at the Site and will be responsible for the correctness of such measurements. No extra charge or compensation will be allowed because of differences between actual dimensions and the dimensions indicated on the Agreement Documents, including the Drawings.

4.4.9 Ground Level Construction Photography.

4.4.9.1 The Contractor must furnish progress photographs of the project. The photographer selected by the Contractor must be approved by the City and must be either a commercial photographer or an individual experienced and equipped for such photography.

4.4.9.2 The Contractor must deliver to City all photographs taken during that period with each application for payment. If the current photographs do not accompany the application, the application will not be reviewed and will be returned to the Contractor as incomplete.

4.4.9.3 Photographs must be identified by use of typewritten labels affixed to the back of the photograph. The label must provide a description of the view, the direction from which the photograph was taken, the name of the project, City's project number, the name of Contractor and the date of the photography. The stationing must also be included for all pipeline installations.

4.4.9.4 Photographs must be taken during the construction period and must be of aesthetic composition and depict the progress of the Work from the beginning of construction through and including the finished product. City may vary the specified frequency so that significant progress or changes can be recorded on the photographs.

4.4.10 Underground Facilities.

4.4.10.1 The existence and number of facilities as shown on the Plans are estimated from information furnished by the particular utility. Contractor is responsible for field verification and location of all utilities prior to the start of construction. No field work will be allowed to start until Contractor has contacted Arizona 811 and all affected utilities have been located. In addition, Contractor must expose and physically locate all potentially conflicting utilities prior to construction. The actual locations of the utilities must be compared to locations shown on the Plans and any required changes in alignment and grade must be made at the time of construction in consultation with Project Manager. It is generally recognized and Contractor should anticipate that information from Arizona 811 or information from utility companies during project design, frequently fails to disclose all underground facilities. The fact that more utility lines or other underground facilities are located in the Project Site than shown on the Project Plans does not constitute an "unforeseen Condition" and such undisclosed underground facilities do not differ materially from the conditions which Contractor should expect. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction apply and are incorporated herein by this reference.

4.4.10.2 Contractor is responsible for all coordination with utility companies. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction strictly apply and no additional compensation will be paid to Contractor for delays due to utility work on the project.

4.4.11 Relocation of Existing Water Meters. When a service line has been extended and a line

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setter installed in a meter box, City forces will re-install meter. No compression fittings will be utilized.

4.4.12 Water Turn-On or Turn-Off.

4.4.12.1 Contractor must coordinate all water line turn-ons and turn-offs through the City. Application must be made to the Municipal Utility Division and Contractor must pay the established charges. The City will close existing valves, but will not guarantee a bone-dry Shutdown.

4.4.12.2 Contractor must notify all customers affected by the turn-off not less than 48 hours in advance. Notification must be in writing, must give the reason for the turn-off and must give the estimated time and duration that water service will be interrupted. Contractor is also notified that water turn-off will not be permitted on the Day before and after Thanksgiving Day and Christmas Day.

4.4.12.3 No direct payment will be made to Contractor for turn-ons or turn-offs. Costs associated therewith will be included in other items for which direct payment is made.

4.4.13 Tests and Inspections.

4.4.13.1 Contractor must give City timely (at a minimum, twenty-four hours) notice of readiness of the Work for all required inspections, tests or approvals. Contractor must give timely notice to City in advance of backfilling or otherwise covering any part of the Work so that city representative may, if desired, observe such part of the Work before it is concealed. Whenever Contractor varies the normal period during which Work or any portion of it is carried on each Day, Contractor must give timely notice to City so that city representative may, if desired, be present to observe the Work in progress. If Contractor fails to give such timely notice, any Work done in the absence of city representative will be subject to rejection. If Contractor gives such notice to City, but then is not ready for such inspections, tests, approvals or observations at the time so noticed, Contractor must reimburse City for all costs incurred by the attendance of city representatives.

4.4.13.2 If any law, ordinance, rule, regulation, code, or orders of any public body having jurisdiction requires any Work (or part thereof) to be inspected, tested or approved, Contractor (unless another party is specified in the Agreement Documents) must assume full responsibility therefor, pay all costs in connection therewith and furnish City the required certificates of inspection, testing, or approval. Contractor must also be responsible for and must pay all costs in connection with any inspection or testing required by the Specifications in connection with City's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Agreement Documents will be paid by City (unless otherwise specified).

4.4.13.3 All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction must be performed by organizations acceptable to City and by the Design Professional if so specified.

4.4.13.4 Neither observations by City, the Design Professional nor inspections, tests or approvals by others will relieve Contractor from their obligations to perform the Work in accordance with the Agreement Documents.

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4.4.14 Uncovering Work. If any Work that is to be observed, inspected, tested or approved is covered without written concurrence of City, it must, if requested by City be uncovered for observation. Unless Contractor has given City timely notice of Contractor's intention to cover such Work and City has not acted with reasonable promptness in response to such notice, Contractor must furnish all necessary labor, material and bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order will be issued.

4.4.15 In all cases of interconnection of its Work with existing or other Work, Contractor must verify at the Site all dimensions relating to such existing or other Work. Any errors due to Contractor's failure to so verify all such grades, elevations, locations or dimensions must be promptly rectified by Contractor without any increase in the Agreement Price. Any design errors or omissions noted by Contractor during this review must be reported promptly to City.

4.4.16 Contractor must establish and maintain all construction grades, lines, levels, and benchmarks, and will be responsible for accuracy and protection of same. This Work must be performed or supervised by a licensed civil engineer or surveyor in the State of Arizona.

4.4.17 Contractor must photograph all buried piping of greater than four (4) inches in diameter prior to backfill.

4.4.18 Contractor is responsible for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Agreement Documents is intended or deemed to create any legal or contractual relationship between City and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

4.4.19 Contractor must coordinate the activities of all Subcontractors. Contractor must coordinate performance of the Work with City's Public Works & Utilities Department and other departments or agencies within City. The Design Professional and other contractors or parties involved in the Project. If City performs other work on the Project or at the Site with separate contractors under City's control, Contractor agrees to cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

4.4.20 Contractor will not substitute or change any Subcontractor or Supplier without the prior written approval of City. Any substitute or replacement Subcontractor or Supplier must be required to meet the same qualifications and selection criteria and process as the original Subcontractor or Supplier. If a Subcontract/Supplier selection plan has been approved by City, Contractor will follow that plan unless otherwise approved by City in writing.

4.4.21 Contractor must not change or replace any members of its Project team, including Contractor's Representative, Project Manager, or Superintendent, without an explanation for the change being given to City, and receiving prior written approval of the change from City, which approval will not be unreasonably withheld.

4.4.22 Subcontractors whose scope of work has a value greater than 15% of the total Agreement Price are required to furnish performance and payment bonds to Contractor, unless

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otherwise approved in writing by City.

4.4.23 Contractor must comply with MAG Specification § 108.2 (E) unless otherwise specified in Agreement Documents.

4.5 **CONTROL OF THE PROJECT SITE**

4.5.1 Throughout all phases of construction, including suspension of Work, Contractor must keep the Site reasonably free from debris, trash and construction wastes to permit Contractor to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Prior to Final Acceptance of the Work, or a portion of the Work, Contractor must remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit City to occupy the Project or a portion of the Project for its intended use.

4.5.2 Contractor must take whatever steps, procedures or means necessary to prevent dust nuisance due to construction operations. The dust control measures must be maintained at all times to the satisfaction of City and in accordance with the requirements of the Maricopa County Bureau of Air Pollution Control Rules and Regulations.

4.5.3 Contractor must maintain Americans with Disabilities Act (ADA) and American National Standards Institute (ANSI) accessibility requirements during construction activities, including without limitation compliance with the 2010 regulations governing implementation of the ADA to the extent applicable. ADA and ANSI accessibility requirements must include, but not be limited to, parking, building access, areas of refuge, and emergency exit paths of travel. Contractor i s responsible for the coordination of all Work to minimize disruption to residents and the public.

4.5.4 Only materials and equipment used directly in the Work will be brought to and stored on the Site by Contractor. When equipment is no longer required for Work, it must be removed promptly from the Site. Protection of construction materials and equipment stored at the Site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

4.5.5 Contractor agrees all persons working on the Site must act at all times in the best interest of the Project and will comply with all applicable rules and regulations reasonably set forth by City related to the Site. Notwithstanding the foregoing or anything in this Agreement to the contrary, City may remove from the Site any individual who City deems in their reasonable discretion to be creating a disturbance or causing any problem on the Site.

4.5.6 Contractor will be responsible to City for the acts and omissions of Contractor's employees, Subcontractors and their agents and employees, and any other person performing any of the Work under an Agreement with Contractor, or claiming by, through or under Contractor, for all damages, losses, costs and expenses resulting from such acts or omissions.

4.5.7 City may conduct criminal, drive history, and all other requested background checks of Contractor and Subcontractor personnel performing Work or who have access to City's information, data, or facilities in accordance with City's current background check policies, or the provisions of the Project Specific Conditions. Any officer, employee or agent that fails to background check must be replaced immediately.

4.5.8 City will have a final authority, based upon security reasons: (i) to determine when

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security clearance of Contractor's and Subcontractor's personnel is required; (ii) to determine the nature of the security clearance, up to and including fingerprinting personnel; and (iii) to determine whether or not any individual or entity may provide Services or perform Work under the Agreement.

4.5.9 If City objects to any personnel for any reasonable cause, then Contractor must, upon notice from City, remove such individual from the Project.

4.6 **PROJECT SAFETY**

4.6.1 The Project and all Work performed in relation thereto is governed by applicable provisions of the federal laws, including but not limited to, the latest amendments of the following:

a. Williams-Steiger Occupational Safety & Health Act of 1970, Public Law, 91-596.

b. Part 1910 and Part 1926 – Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

c. Part 1518 – Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

4.6.2 Contractor is responsible for safety of the job Site for employees of Contractor as well as for members of the general public and others who may drive or walk through or be at the Site.

4.6.3 Contractor recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to: (i) all individuals at the Site, whether working or visiting; (ii) the Work, including materials and equipment incorporated into the Work and stored On-Site or Off-Site; and (iii) all other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction; and (iv) the owners or tenants of adjacent property and their patrons, employees and invitees.

4.6.4 Contractor assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work.

4.6.5 Contractor must provide a "competent person' as required by O.S.H.A regulations. The "competent person" must be identified at the Pre-Construction Conference with City advised in writing of any changes.

4.6.6 The "competent person" must make routine daily inspections of the Site and must hold weekly safety meetings with Contractor's personnel, Subcontractors and others as applicable.

4.6.7 Contractor and Subcontractors must comply with all legal and regulatory requirements relating to safety, as well as any City specific safety requirements set forth in the Agreement Documents, provided that such City-specific requirements do not violate any applicable legal and regulatory requirements.

4.6.8 Contractor will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Project Manager and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

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4.6.9 Contractor's responsibility for safety under this Section is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters, and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injury, losses, damages or accidents resulting from their performance of the Work.

4.6.10 As between City and Contractor, Contractor is responsible to City for any and all the safety issues relating to the Work on the Project. Contractor must administer and manage the safety program. This will include, but not necessarily be limited to review of the safety programs of each Subcontractor. Contractor must monitor the establishment and execution of compliance with all applicable regulatory and advisory agency construction safety standards. Contractor's responsibility for review, monitoring, and coordination of the Subcontractor's safety programs will not extend to direct control over execution of the Subcontractors' safety programs. Notwithstanding Contractor's safety obligations to City, it is agreed and understood that each individual Subcontractor will remain controlling employer responsible for the safety programs and precautions applicable to its own work and the activities of other's work in areas designated to be controlled by such Subcontractor for purposes of workers compensation insurance coverage.

4.6.11 Nothing in this agreement will relieve Contractor of his responsibility to maintain traffic, structures, etc., as noted on the Plans, Specifications, and Project Specific Conditions. Contractor is responsible to provide all necessary shoring, bracing and trench support as is necessary to maintain traffic structures, etc., as stipulated in the Plans, Specifications, and Special Provisions. If the stability of adjoining building, walls, roadways, etc., is endangered by Contractor's excavation, shoring, bracing, or under pinning must be provided as necessary to ensure project safety. Cost for shoring, bracing, underpinnings, and trench support will be included in the appropriate items listed in the Agreement Price, and no additional payment will be made for this work.

4.7 MATERIALS QUALITY, SUBSTITUTIONS, AND SHOP DRAWINGS

4.7.1 Quality Control and Quality Assurance Testing.

4.7.1.1 All construction materials to be used or incorporated in the Project are subject to inspection, Quality Control & Quality Assurance Testing, and approval or rejection by City. Any material rejected by City must be removed immediately and replaced in an acceptable manner to City at no additional cost to City. When QC/QA tests indicate noncompliance with the Agreement Documents, retesting must be performed by the same testing laboratory that performed the tests that indicated noncompliance.

4.7.1.2 The Contractor must establish, provide, and maintain an effective Quality Control Testing Program (QCTP). The Contractor must develop his own program or procure the services of a consultant. In either case, the party performing the tests must be currently certified by the National Bureau of Standards in the National Voluntary Laboratory Accreditation Program (NVLAP) for construction services or the AASHTO Accreditation Plan (AAP) for Soils, Asphalt and Concrete. The Contractor must provide all support necessary to perform QC and QA testing and sampling (i.e. shoring for testing trench backfill, backhoes, motor graders, loaders, etc. to facilitate testing and sampling). The City will perform the QA testing.

4.7.1.3 The Contractor must submit a written QCTP to the City as a required submittal. The Contractor must not begin Work until the Quality Control Program has been reviewed and

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accepted by the City. Resumes of all personnel that will be associated directly or indirectly with the QCTP must be included.

4.7.1.4 The QCTP must include, but not be limited to, on-site/field and laboratory testing of all material delivered to the Site and any existing materials or conditions pertinent to the project.

4.7.1.5 All testing must be under the direction of a Professional Engineer registered in the State of Arizona, knowledgeable in Materials Testing. All "Test Report" forms must be stamped by said Engineer.

4.7.1.6 The written QCTP will set forth the responsibilities of the engineer, project manager, supervisory personnel and each technician assigned to this project. Substitutions or replacement of personnel must require prior written approval by the City. All personnel must be proficient within their assigned duties and possess certification(s) commensurate with their position and responsibilities. The minimum certification(s) for each technician must be NICET Level II, Arizona Technical Testing Institute, American Concrete Institute, or other nationally recognized program applicable to the project and approved by the City of Chandler. The written QCTP must include a description of the required field and construction materials laboratory tests, including required frequencies that meet the minimums established herein.

4.7.1.7 The Contractor must establish a system to record and report all material test results. The daily test reports must include, but not be limited to:

a. Test designation;
b. Date of test;
c. Name of tester;
d. Location of test/sample (station and offset);
e. Product suppliers and product codes (as applicable);
f. Depth/elevation of test/sample;
g. Test result;
h. Control requirement(s);
i. Cause of rejection (if applicable);
j. Results of retests (if applicable); and
k. Remedial action (if applicable).

4.7.1.8 The Contractor must submit test results to the designated City representative.

4.7.1.9 The Contractor must also submit a weekly report to the City summarizing the testing and construction activities completed by emailing the report to the email addresses noted above. All weekly reports must be submitted simultaneously to the Contractor and the City of Chandler. The report must include individual summary sheets for each utility line, structure, and portion of the pavement section. Cores must be numbered sequentially throughout the Project. Re-cores must reference the original core by number and must contain the averaged values for thickness and density. Total pavement thickness must be reported**.** Vertical location of tests for underground utilities must indicate the depth of the

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excavation at the location of the test (i.e., cut to flow line [if applicable], depth to bottom or top of pipe, etc.). Density tests must be numbered sequentially. If the minimum number of tests has not been performed per the written QCTP, this must be stated in the weekly summary report with an explanation of the circumstances.

4.7.1.10 The City will maintain a copy of the Project test results and weekly reports in the Project file. In cases where quality control activities do not comply with the Agreement provisions, the City may:

a. Order the Contractor to replace ineffective or unqualified quality control personnel.

b. Order the Contractor to stop operations until appropriate corrective action is taken.

4.7.1.11 Although minimum testing requirements are specified herein, the Contractor bears full responsibility for the quality of the materials and their installation and may elect to perform additional testing beyond the requirements set forth herein to ensure compliance.

4.7.1.12 The Quality Control requirements contained in this Section are in addition to and separate from Quality Assurance Testing, which will be performed by the City of Chandler or its representative. If the Quality Assurance test results are not in agreement with the Quality Control test results, the Contractor will have the option to retain a third party consultant for referee tests. The third party consultant must meet the same requirements as the consultant performing the Quality Control Testing. The results of the third party will be binding. All cost incurred by the referee testing will be the Contractor's expense. If the Contractor elects not to retain a third party for referee testing, the City of Chandler test results will prevail.

4.7.1.13 Except as otherwise noted within this Section, Work or materials required by this Section are non- pay items. Per MAG Section 101, a non-pay item is an item of Work for which no separate payment will be made, the cost of which is to be included as an incidental cost for associated item(s) included on the Bid Schedule or Schedule of Values.

4.7.2 Trade Names and Substitutions.

4.7.2.1 Substitutions prior to bid will only be considered if in compliance with Arizona Revised Statute § 34-104.

4.7.2.2 Contractor, if requested by City, must submit Samples or any additional information that may be necessary to evaluate the acceptability of the substitution.

4.7.2.3 City will make the final decision and will notify Contractor in writing as to whether the substitution has been accepted or rejected.

4.7.2.4 If City does not respond within 15 working days, Contractor must continue to perform the Work in accordance with the Agreement Documents and the substitution will be considered rejected.

4.7.3 Shop Drawings.

4.7.3.1 Contractor must prepare and submit Shop Drawings which show details of all Work to insure proper installation of the Work using those materials and equipment specified under the approved Plans and Specifications.

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4.7.3.2 Contractor must submit a schedule of Shop Drawing submissions, which avoids bulk submissions to the extent reasonably possible, with the Project Schedule for City approval. The schedule of Shop Drawing submissions must include all of the items for which Shop Drawings are required by the Agreement Documents, including the Specifications. Unless otherwise noted, Shop Drawings will not be required for items specified or detailed in the Uniform Standard Specifications and Details or the Technical Specifications.

4.7.3.3 Shop Drawings must be numbered consecutively for each Specification section and must accurately and distinctly present the following:

a. All working and erection dimensions.

b. Arrangements and sectional views.

c. Necessary details, including complete information for making connections between work under this Agreement and work under other Agreements.

d. Kinds of materials and finishes.

e. Parts list and description thereof.

4.7.3.4 Each Drawing or page must include:

a. Project Name, City of Chandler Project Number and descriptions.

b. Submittal date and space for revision dates.

c. Identification of equipment, product or material.

d. Name of Contractor and Subcontractor.

e. Name of Supplier and Manufacturer.

f. Relation to adjacent structure of material.

g. Physical dimensions clearly identified.

h. ASTM and Federal Specifications references.

i. Identification of and justification for deviations from the Agreement Documents.

j. Contractor's stamp, initialed or signed, dated and certifying the review of submittal, certification of field measurements and compliance with Agreement.

k. Location at which the equipment or materials are to be installed.

4.7.3.5 Location will mean both physical location and location relative to other connected or attached material. City will return unchecked any submittal, which does not contain complete data on the Work and full information on related matters.

4.7.3.6 Stock or standard drawings will not be accepted for review unless full identification and supplementary information is shown thereon in ink or typewritten form.

4.7.3.7 Contractor must schedule, prepare and submit all Shop Drawings in accordance with a time-table that will allow its suppliers and manufacturers sufficient time to fabricate, manufacture, inspect, test and deliver their respective products to the project Site in a timely manner so as to not delay the complete performance of the Work.

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4.7.3.8 If the Shop Drawings show departures from the Agreement requirements, Contractor must make specific mention thereof in the Letter of Transmittal; otherwise review of such submittals by City will not constitute review of the departure. Review of the Drawings will constitute review of the specific subject matter for which the Drawings were submitted and not of any other structure, material, equipment, or apparatus shown on the Drawings.

4.7.3.9 The review of Shop Drawings will be general and will not relieve Contractor of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the Work, nor for the furnishing of materials or Work required by the Agreement. No construction called for by Shop Drawings will be initiated until such Drawings have been reviewed and approved by City.

4.7.3.10 The procedure in seeking review of the Shop Drawings will be as follows:

a. Contractor must submit complete sets of Shop Drawings and other descriptive data as specified in this Section.

b. After Contractor's submittal or resubmittal of Shop Drawings, if Contractor has submitted Shop Drawings in accordance with the City-approved submittal schedule, or upon resubmission, City will be provided with three (3) calendar weeks for review. Should City require additional review time above and beyond the three (3) calendar weeks, Contractor may ask for a time extension or monetary compensation, if they can present valid, factual evidence that actual damages were incurred by Contractor. City will determine the amount of the time extension or the monetary compensation to be awarded Contractor, if any, in accordance with City's Policy Statement for Calculating Delays and Damages, Appendix 1.

4.7.3.11 Contractor will be responsible for all extra costs incurred by City caused by Contractor's failure to comply with the procedure outline above.

4.7.4 Long Lead Time Items. Contractor must submit Shop Drawings, as required by the Engineer, on all long lead items to be furnished and installed as part of the project within 10 Days after the date of the executed Agreement letter issued by City. In addition, Contractor must order all long lead items to be furnished and installed as part of this Project within 3 Days after receiving approved Shop Drawings. For all long lead times for which Shop Drawings are not required, Contractor must order said long lead items within 15 Days after the date of the executed Agreement letter issued by City. Within 2 Days after ordering long lead items, Contractor must supply copies of all purchase orders, along with an accurate delivery schedule from the supplier.

4.7.5 Construction Water. If Contractor uses water from City's water system for construction water, Contractor must obtain a fire hydrant meter from City of Chandler Utility Services (480-782-2280) and all construction water must be obtained through the hydrant meter. Contractor must pay all fees related to the hydrant meter and all water bills for construction water. All cost for meters and construction water will be included in the Agreement Price.

4.8 PROJECT RECORD DOCUMENTS

4.8.1 During the construction period, Contractor must maintain at the jobsite a full-size set of prints of the Construction Document Drawings and Shop Drawings for Project Record Document purposes.

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4.8.2 Contractor must mark these Drawings to indicate the actual installation where the installation varies from the original Construction Documents. Contractor must give particular attention to information on elements that will be concealed, which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

a. Dimensional changes to the Drawings.

b. Revisions to details shown on Drawings.

c. Locations and depths of underground utilities.

d. Revisions to routing of piping and conduits.

e. Actual equipment locations.

f. Changes made by Change Order or Addendum.

g. Details not on original Agreement Drawings.

4.8.3 Contractor must mark completely and accurately Project Record Drawing sets of Construction Documents.

4.8.4 Contractor must mark Project Record Drawings sets with red erasable colored pencil.

4.8.5 Contractor must note Request for Information (RFI) Numbers and Change Order numbers, etc., as required to identify the source of the change to the Construction Documents.

4.8.6 Contractor must submit Project Record Drawing sets and Shop Drawings to City or its representative for review and comment.

4.8.7 Upon receipt of the reviewed Project Record Drawings from City, Contractor must correct any deficiencies and omissions to the Drawings and submit the final original of the Project Record Drawings to City prior to Final Payment.

4.8.8 Project Manager will review the Project Record Drawings monthly prior to the date established for the Payment Request and will be the sole judge of acceptance of these Drawings.

4.9 WARRANTY AND CORRECTION OF DEFECTIVE WORK

4.9.1 Contractor warrants to City that the construction, including all materials and equipment furnished as part of the Work, will be new unless otherwise specified in the Agreement Documents, of good quality, and free of defects in materials and workmanship. Contractor's warranty obligation excludes defects caused by abuse, alterations, or unreasonable failure to maintain the construction by persons other than Contractor, subcontractors, or others under Contractor's control. Nothing in this warranty will limit any manufacturer's warranty which provides City with greater warranty rights than set forth herein or in the Agreement. Contractor will provide City with all manufacturers' warranties and operation and maintenance manuals upon substantial completion of the Work. Contractor's warranty must be for one (1) year, in accordance with MAG Specification § 108.8, and will commence for all portions of the Work upon Final Acceptance of the entire Work as determined by City under the Agreement. All statutory or other warranties, express or implied, related to latent defects will remain in force and are not limited by this provision.

4.9.2 City May Stop the Work. If the Work is defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, City may order Contractor to stop the

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Work without cost to City, or any portion thereof, until the cause for such order has been eliminated; however, this right of City to stop the Work will not give rise to any duty on the part of City to exercise this right for the benefit of Contractor or any other party.

4.9.3 Correction or Removal of Defective Work.

4.9.3.1 If required by City, Contractor must promptly, without cost to City and as specified by City, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by City, remove it from the Site and replace it with non-defective Work. Contractor must correct any Work which may be displaced in correcting, removing or replacing defective Work. No compensation will be allowed Contractor for such removal, replacement or remedial Work. Contractor must reimburse City for costs incurred by City due to such correction or removal including but not limited to additional expenses for inspection, testing or observation and for repeated reviews by the City or Design Professional.

4.9.3.2 Upon failure on the part of the Contractor to comply within a reasonably prompt time with any written order of City to correct or remove defective Work, City has authority to cause nonconforming materials or rejected Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.4 City May Correct Defective Work. If Contractor fails within a reasonable time after written notice of City to proceed to correct defective Work or to remove and replace rejected Work as required by City or if Contractor fails to perform the Work in accordance with the Agreement Documents (including any requirements of the progress schedule), City may, after 7 Days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, City may exclude Contractor from all or part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site and incorporate in the Work all materials and equipment stored at the Site or for which City has paid Contractor, but which are stored elsewhere. Contractor must allow City, city representatives, agents and employees such access to the Site as may be necessary to enable City to exercise City’s rights under this Section. All direct and indirect costs of City in exercising such rights will be charged against Contractor in an amount verified by City representative, and a Change Order will be issued incorporating the necessary revisions in the Agreement Documents and a reduction in the Agreement Price. Such direct and indirect costs will include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of Work or others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor will not be allowed an extension of the Agreement Time because of any delay in Contractor’s performance of the Work attributable to the exercise by City or City's rights hereunder.

4.9.5 Correction or Removal of Unauthorized Work.

4.9.5.1 Any Work done beyond the lines and grades shown on the Drawings or established by the Design Professional or any changes in, additions to, or deductions from the Work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed, or replaced at the Contractor's expense.

4.9.5.2 Upon failure on the part of the Contractor to comply promptly with any order of the City,

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City will have authority to cause unauthorized Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.6 Correction Period - One Year Guarantee.

4.9.6.1 If, within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Agreement Documents, or by any specific provision of the Agreement Documents, any Work is found to be defective, Contractor must promptly, without cost to City and in accordance with City's written instructions, either correct such defective Work, or, if it has been rejected by City, remove it from the Site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, City may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, must be paid by Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Agreement Documents.

4.9.6.2 If, in the opinion of the City, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of operation of the City, the City will attempt to give the notice required by this Section. If the Contractor cannot be contacted or does not comply with the City's request for correction within a reasonable time as determined by the City, the City may, notwithstanding the provisions of this Section, proceed to make such correction or provide such attention; and the costs of such correction or attention will be charged against the Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Agreement Documents.

4.9.6.3 This Section does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer or supplier gives a guarantee for a longer period. The Contractor agrees to act as co-guarantor with such manufacturer or supplier and must furnish the City all appropriate guarantee or warranty certificates upon completion of the Project. No guarantee period, whether provided for in this Section or elsewhere, will in any way limit the liability of Contractor or their sureties or insurers under the indemnity or insurance provisions of these General Conditions and the Project Specific Special Conditions.

4.9.7 Acceptance of Defective Work.

4.9.7.1 If, instead of requiring correction or removal and replacement of defective Work, City may accept Work when in the best interest of the City to do so with appropriate monetary credit from Contractor. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Agreement Documents, including appropriate reduction in the Agreement Price; or, if the acceptance occurs after final payment, an appropriate amount must be paid by Contractor to City.

4.9.7.2 Alternatively, City may require Contractor to furnish at Contractor's expense, a special performance guarantee or other surety prior to acceptance of defective work.

4.9.8 The Warranty period begins on the Final Acceptance date noted in the Certificate of Completion, irrespective of early completion by some Subcontractors of their work.

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4.9.9 Contractor's warranty obligation must be in accordance with MAG Specifications.

4.9.10 Nothing in the warranties contained in the Agreement Documents are intended to limit any manufacturer's warranty which provides City with greater warranty rights than set forth in this Section or the Agreement Documents. Contractor must provide City with all manufacturers' warranties prior to Substantial Completion, if applicable, or Final Acceptance.

4.9.11 Contractor agrees that it will be responsible to manage and administer the correction of any Work that is not in conformance with the Agreement Documents during the warranty periods set forth in this Section, or during any longer periods to the extent required by the Agreement Documents. A progress payment, or partial or entire use or occupancy of the Project by City, will not constitute acceptance of Work not in accordance with the Agreement Documents.

4.9.12 When notified of a warranty issue, Contractor must respond in writing within 48-hours and must perform warranty Work as soon as material for said repairs are available (as judged solely by City), and in any event Contractor must, take immediate steps to commence and complete correction of nonconforming Work no later than the time period set forth in City's written notification in accordance with the Agreement Documents. This includes the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If defects develop which are determined by City to be an emergency, City will notify Contractor, via the most expeditious means regarding the nature and condition of the defects. In turn, Contractor must immediately dispatch necessary forces to correct the defect or the emergency condition in accordance with Agreement Documents.

4.9.13 The time periods referenced in this Section apply only to Contractor's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies that City may have regarding Contractor's other obligations under the Agreement Documents.

4.9.14 Without limiting the foregoing or anything in these General Conditions or the Agreement to the contrary, Contractor must obtain and provide to City all warranties for any portion of the Project offered by the manufacturer, installer or provider thereof. City and the user of the facility will have the right to the full value and benefit of all such warranties. Contractor must ensure all such warranties are fully transferrable to facilitate the full value of this Section.

4.9.15 Contractor's warranty excludes damages or defects caused by abuse, alterations to the Work not executed by or through Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.

4.9.16 In the event of any noncompliance with this entire Section 4, City may require Contractor to stop or suspend the Work in whole or in part.

SECTION 5 - CITY RESPONSIBILITIES

5.1 CITY PROJECT MANAGER AND INSPECTORS

5.1.1 Project Manager is responsible for providing City-supplied information and approvals in a timely manner to assist Contractor to fulfill its obligations under the Agreement Documents.

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5.1.2 Project Manager will also provide Contractor with prompt notice when it observes any failure on the part of Contractor to fulfill its contractual obligations, including any default or defect in the Project or non-conformance with the Drawings and Specifications.

5.1.3 City may utilize Field Inspectors to assist Project Manager during construction in observing performance of Contractor. City's use of Inspectors is for the purpose of assisting Project Manager.

5.1.4 The Inspectors are authorized to inspect all Work and materials furnished. Such inspections may extend to all or part of the Work and to preparation, fabrication or manufacture of the materials to be used. The Inspectors have the authority to issue instructions contrary to the Construction Documents if approved and coordinated with the directions of Project Manager.

5.1.5 The Inspectors have the authority to reject work or materials until any questions at issue can be decided by Project Manager.

5.1.6 The use of Inspectors by City will not make City responsible for or give City control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs or responsibility for Contractor's failure to perform the Work in accordance with Agreement Documents. The Inspectors are not authorized to direct any of Contractor's activities, employees or Subcontractors.

5.2 **DESIGN PROFESSIONAL SERVICES**

City may contract separately with one or more Design Professionals to provide construction administration of the Project. The Design Professional's Agreement, as well as other firms hired by City may be furnished to Contractor. Contractor does not have the right to limit or restrict or reject any Agreement modifications that are mutually acceptable to City and Design Professional.

5.3 **CITY'S SEPARATE CONTRACTORS**

City is responsible for all work performed on the Project or at the Site by separate contractors retained by City. City will contractually require its separate contractors to reasonably cooperate with, and reasonably coordinate their activities so as not to interfere with Contractor in order to enable Contractor to timely complete the Work consistent with the Agreement Documents. Contractor must immediately notify the Project manager, and address the matter in the next monthly status report, if any activities of such separate contractors are expected to interfere, or are interfering, with Contractor and such interference will or could result in any delay in Contractor's performance of the Work.

5.4 **PERMIT REVIEW AND INSPECTIONS**

5.4.1 If requested by Contractor, Project Manager will provide assistance and guidance in obtaining necessary reviews, permits and inspections.

5.4.2 The regulating agencies of City, such as Development and Sustainability, Fire and Planning Departments, enforce legal requirements. The enforcement activities of City are independent and separate from this Agreement.

5.5 **PLANS AND SPECIFICATIONS TO THE CONTRACTOR**.

Contractor will be provided up to five copies of the Agreement Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished,

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upon request, at the cost of reproduction.

SECTION 6 - AGREEMENT TIME

6.1 AGREEMENT TIME

6.1.1 The Agreement Time will start with the Notice to Proceed ("NTP") and end with Final Acceptance.

6.1.2 Beginning on the date of the NTP, Contractor must begin to fulfill Contractor's obligations under the Agreement. Contractor's obligations include providing City and other agencies with any submittals required by the Project Specific Special Provisions, including but not limited to, an approved Project Schedule, Traffic Control Plans, and a Stormwater Pollution Prevention Plan. Contractor must submit all such required submittals before any physical construction work commences on the Site. NTP does not authorize construction work until all agreement insurance, bonds, and schedules are submitted to and accepted by the City.

6.1.3 The Agreement Time will be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through both Substantial Completion and Final Acceptance within the Agreement Time.

6.1.4 Time is of the essence of this Agreement, for the Project, for the Work, and for each phase and designated Milestone thereof.

6.1.5 Failure of Contractor to perform any covenant or condition contained in the Agreement Documents within the time periods specified herein, will constitute a material breach of this Agreement entitling City to terminate the Agreement unless Contractor applies for and receives an extension of time, in accordance with the procedures set forth in the Agreement Documents.

6.1.6 Failure of City to insist upon the performance of any covenant or condition within the time periods specified herein, will not constitute a waiver of Contractor's duty to perform every other covenant or condition within the designated periods, unless a specific waiver is granted in writing for each such covenant or condition.

6.1.7 City's agreement to waive a specific time provision or to extend the time for performance will not constitute a waiver of any other time provisions contained in the Agreement Documents. Failure of Contractor to complete performance promptly within the additional time authorized in the waiver or extension of time agreement constitutes a material breach of this Agreement entitling City to all the remedies set forth herein or provided by law.

6.2 PROJECT SCHEDULE

6.2.1 The Project Schedule must be in Microsoft Project standard file format, must be updated and maintained throughout the Agreement Time, and must contain the following:

6.2.1.1 Detailed representation of all activities for the project, both on-site construction and major procurement. All significant activities together with the resource loading requirements for each and all items appearing on the schedule of values or bid schedule for progress payments must be shown on the Project Schedule or in attached transmittal letter as described in Section 6.2.8.

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6.2.1.2 Dependencies between activities must be indicated so that it may establish as to the effect the progress of any one activity would have on other activities and on the Schedule.

6.2.1.3 Activities for submission, review, and approval of all required submittals.

6.2.1.4 An amount of time will be established prior to the final completion date for "punch list and cleanup". No other activities will be scheduled during this period. Punch list and cleanup must be shown on the Project Schedule and must be entirely completed prior to the expiration of the Agreement Time.

6.2.2 Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review. City's review of and response to the Project Schedule is for the purpose of: (1) City planning and staffing for the Project as may be required from time to time; (2) ensuring Contractor's general conformance with the scheduling requirements of the Agreement Documents and completion of the Project within the Agreement Time; and (3) monitoring and evaluating the construction status for purposes of approving monthly progress payments. Acceptance of a submitted schedule by City should in no way be construed as an affirmation or admission that the schedule is reasonable or workable by Contractor. The responsibility for completing the Work on the Project within the Agreement Time remains the obligation of Contractor. City's review does not relieve Contractor from compliance with the requirements of the Agreement Documents or be construed as relieving Contractor of its complete and exclusive control over the means, methods, sequences and techniques for executing the work.

6.2.3 The Project Schedule must show milestones, including milestones for City-furnished information, and must include activities for City-furnished material and construction by other contractors when those activities are interrelated with Contractor activities.

6.2.4 The Project Schedule must be revised as required by conditions and progress of the Work, but such revisions do not relieve Contractor of its obligations to complete the Work within the Agreement Time, as adjusted in accordance with the Agreement Documents. No modification to the Agreement Documents or the Agreement Time will be effective unless approved in advance by City.

6.2.5 For all items of materials and equipment that are critical or may require long lead times to acquire, the Project Schedule must show dates for submission, review and approval of submittals, ordering, and delivery.

6.2.6 An updated Project Schedule must be submitted monthly to City as part of the Payment Request. The monthly submittal must include one full size plot of the entire schedule and one electronic copy containing the schedule in Microsoft Project standard file format. In addition, Contractor must, upon request by City, provide a copy of all submitted schedule data in electronic format which must be clearly labeled with the Project description, scheduling program name and version number, and schedule print/data date.

6.2.7 Contractor must provide City with a monthly status report with each Project Schedule detailing the progress of the Work, including: (i) if the Work is proceeding according to schedule, (ii) any discrepancies, conflicts, or ambiguities found to exist in the Agreement Documents that require resolution, and (iii) other information detailing items that require resolution so as not to jeopardize the ability to complete the Work in the Agreement Time.

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6.2.8 With each Project Schedule submittal, Contractor must include a transmittal letter including the following:

a. Description of problem tasks, referenced to field instructions or requests for information (RFI's), as appropriate.

b. Current and anticipated delays including:

(i) Cause of the delay.

(ii) Corrective action and schedule adjustments to correct the delay.

(iii) Known or potential impacts and their delay on other activities, milestones, and their impact on the Substantial Completion and Final Acceptance dates.

(iv) Changes in construction sequence.

c. Pending items and status thereof including but not limited to:

(i) Time Extension requests;

(ii) Substantial Completion date status;

(iii) Final Acceptance date status.

d. If ahead of schedule, the number of calendar Days ahead.

e. If behind schedule, the number of calendar Days behind.

f. Other Project or scheduling concerns.

6.2.9 Critical Path Method (CPM).

6.2.9.1 Unless otherwise specified in the Agreement, the Project Schedule must include a Critical Path Method (CPM) diagram schedule showing the sequence of activities, the interdependence of each activity and identifies the Critical Path.

6.2.9.2 The CPM diagram schedule must be in calendar Days and indicate duration, earliest and latest start and finish dates for all activities, and total Float Times for all activities except critical activities. The CPM diagram must be presented in a time scaled graphical format for the Project as a whole.

6.2.9.3 The CPM diagram schedule must indicate all relationships between activities.

6.2.9.4 The activities making the Project Schedule must contain sufficient detail to assure that adequate planning has been done for proper execution of the Work and such that it provides an appropriate basis for monitoring and evaluation the progress of the Work. Individual activities must not exceed 30 Days in length, in most cases.

6.2.9.5 The CPM diagram schedule must be based upon activities, which coincide with the Schedule of Values.

6.2.9.6 The CPM diagram schedule must show all submittals associated with each work activity and the review time for each submittal.

6.2.10 Float Time.

6.2.10.1 The total Float Time within the overall schedule is for the exclusive use of City, but City may approve Contractor's use of Float as needed to meet Agreement Milestones and

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the Project completion date.

6.2.10.2 Contractor will not be allowed to sequence, hide, or reallocate Float Time through such strategies, as extending activity duration estimates to consume available Float, using preferential logic, or using extensive crew/resource sequencing, tec. No time extensions will be granted nor delay damages paid until a delay occurs which extends the Work beyond the Agreement Time.

6.2.11 City-Caused Delays. City-caused delays on the Project, if any, may be offset by City-caused time savings (i.e., Critical Path submittals returned in less time than allowed by the Agreement, approval of substitution requests and credit changes which result in savings of time to Contractor, etc.) In such an event, Contractor will not be entitled to receive a time extension or delay damages until all City-caused time savings are exceeded and the Agreement Time is also exceeded.

6.2.12 Rain-Related Delays. Contractor is required, in preparing the Project Schedule to take into account all relevant weather conditions, including normal rainfall and distribution. No additional compensation will be given for any rain-related delays or impacts on the Work or the Project Schedule. No time extension will be granted in the Project Schedule unless the rainfall during the construction of Work is unusually severe, was not reasonably anticipated, and the total rainfall was significantly in excess of the normal rainfall for the Project Site location. Normal rainfall for the Project will be determined from the 10-year average rainfall for the Site as measured by the National Oceanic and Atmospheric Administration or comparable source of reliable information for rainfall in Chandler, Arizona. In addition, the excessive rainfall must have actually impacted Work activities on the Critical Path and caused delay beyond any remaining Float at the time of the rain- caused delay. The burden of documenting normal rainfall, the excessive rainfall and the impact on Critical Path activities is on Contractor. All other provisions in the Agreement Documents relating to claims, including without limitation notice requirements, apply to any claim by Contractor for a rain delay.

6.2.13 City's "Policy Statement for Calculating Delays and Damages," Appendix 1 to these General Conditions, will apply to all claims of delay and delay damages.

6.2.14 Force Majeure. If Contractor is delayed or prevented from the performance of any Work required under this Agreement by reason of acts of God or other causes beyond the control and without fault of Contractor (financial inability excepted), performance of that Work will be excused, but only for the period of the delay. The time for performance of the Work will be extended for a period equivalent to the period of delay. In addition, the parties agree if Contractor's delayed or suspended performance directly arises out of or directly results from the COVID-19 pandemic, Contractor's delayed or suspended performance may be excused as set forth in this clause. Provided, however; Contractor must give the City written notice within 30 days of the occurrence of the event giving rise to COVID-19 pandemic related delayed or suspended performance. For COVID-19 pandemic related delay or suspended performance, the parties must agree in writing to the length of the excused delay or suspended performance. Further, Contractor must obtain the City's written approval to use any allowance established as part of the project for delays and costs related to the COVID-19 pandemic.

6.3 SUBSTANTIAL COMPLETION

6.3.1 When Contractor considers that the Work, phase or a portion thereof, which City agrees in

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writing to accept separately, is substantially complete, City will prepare and submit to Contractor a comprehensive Punch List of items to be completed or corrected prior to Final Acceptance and Final Payment. Failure to include an item on such Punch List does not alter the responsibility of Contractor to complete all Work in accordance with the Agreement Documents.

6.3.2 Upon receipt of Contractor's Punch List, Project Manager will make an inspection to determine whether the Work or designated portion thereof is substantially complete. Project Manager may, at Project Manager's sole option, be assisted in such inspection by the Design Professional for the Project. If the inspection by the Project Manager discloses any item, whether or not included on Contractor's Punch List, which is not sufficiently completed in accordance with the Agreement Documents so that City can occupy or utilize the Work, phase or designated portion thereof for its intended use, Contractor must, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by Project Manager. In such case, Contractor must then submit a request for another inspection by Project Manager to determine Substantial Completion.

6.3.3 Certificate of Substantial Completion.

6.3.3.1 The Project Manager will not issue a Certificate of Substantial Completion unless and until the Work (or separable units or Phases as provided in the Agreement Documents) is essentially and satisfactorily complete in accordance with the Agreement Documents, such that the Project is ready for use by City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full-operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories and similar elements are installed in the proper manner and in operating condition, inspected and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air condition, vertical transportation and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other Work as applicable, has been performed to a similar state of essential and satisfactory completion. A minor amount of Work, as determined by and at the discretion of the Project Manager, such as installation of minor accessories or items, a minor amount of painting, minor replacement of defective work, minor adjustment of controls or sound systems, or completion or correction of minor exterior work that cannot be completed as a result of weather conditions, will not delay determination of Substantial Completion. If prior written approval is obtained from City for purposes of Substantial Completion, specified areas of the entire Work or Project may be individually certified as Substantially Complete. In no event will Substantial Completion be deemed to have occurred unless and until: (i) a temporary certificate of occupancy has been issued by the appropriate Governmental Authorities (as applicable) and (ii) all terms and Work required under this Agreement have been fulfilled by Contractor and same will have also been approved and accepted by City, subject only to the Punch List items.

6.3.3.2 If requested by City, Contractor must complete and turn-over to City the Project on a phased basis. Each phase will have a separate inspection by the Project Manager, a Punch List generated, and then an inspection by City with final approval and acceptance only after the

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Project Manager's Punch List.

6.4 **PARTIAL UTILIZATION**

6.4.1 City at City's option may use and occupy any substantially completed parts of the Work which has specifically been identified in the Agreement Documents, or which City, the Design Professional and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose, without significant interference with Contractor's performance of the remainder of the Work, provided, however, if the portion of the Work to be used or occupied has not been found to be substantially complete, City must do so in accordance with Section 6.3 prior to such occupancy.

6.4.2 In lieu of the issuance of a Certificate of Substantial Completion as to part of the Work, City may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, City and Contractor agree in writing as to the division of responsibilities between City and Contractor for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

6.4.3 Substantial Completion of or City's beneficial occupancy of a part of the Project will not alter the fact that the one-year warranty for the whole Project starts at the date of Final Completion of the whole Project.

6.5 **FINAL ACCEPTANCE**

6.5.1 Unless otherwise expressly agreed to in writing by City, Final Acceptance must be obtained by no later than 30 Days (60 Days for federally funded agreements) after the date of Substantial Completion. Failure to timely obtain Final Acceptance will be a material breach of the Agreement.

6.5.2 Upon receipt of written notice that the Work is ready for final inspection and acceptance, City and Contractor will jointly inspect to verify that the remaining items of Work have been completed. There will be no partial acceptance. Final Acceptance will not occur until all items of Work, including Punch List Items, have been completed to City's satisfaction as reflected in the written Final Acceptance.

6.5.3 Final Payment will not be due, owing, or paid by City until Final Acceptance is issued.

6.5.4 Landscape Establishment Period. Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will begin on the date of Final Acceptance of the Project and will run 90 Calendar Days thereafter. Landscape Establishment Period requirements are detailed in General Conditions Appendices, attached herein.

6.6 **CONTINUATION OF WORK**

6.6.1 Permitting Contractor to continue and finish the Work or any part of it after the time fixed for its completion (whether milestone, phase, Substantial Completion or Final Acceptance) or after the date to which the time fixed for any completion may have been extended, does not operate as a waiver by City of any rights under the Agreement Documents, law or equity.

6.6.2 Furthermore, the timely completion of the Work being of the utmost importance under this Agreement, notwithstanding the existence of one or more disputes between the parties

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concerning the scope of the Work, the Project Schedule, Agreement Time, payments or any other matter, and further notwithstanding a party's invocation of the Dispute Resolution provisions specified in Appendix 6 of these General Conditions, unless City suspends the Agreement or Contractor's performance pursuant to Section 10 of these General Conditions, Contractor will continue to prosecute the Work, including any Change Order work or Extra Work Orders, in a diligent and timely manner and not stop, slow down or impede by action or inaction the progress of the Work, including commencing performance of and thereafter completing any additional work called out in any Change Order or Extra Work Order issued by Project Manager with the approval of City, so long as City makes payment to Contractor in accordance with Section 8 of these General Conditions.

SECTION 7 - AGREEMENT PRICE

7.1 UNIT PRICE AGREEMENTS

7.1.1 The Agreement Price for all Unit Price Agreements will be the amount set forth in the Agreement or Change Order multiplied by the verified quantity provided.

7.1.2 Measurements of quantities to determine the total Agreement Price must be in accordance with MAG Specification §§ 109.1 and 109.2.

7.1.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2 CHANGE ORDERS

7.2.1 Unit Price Change Orders. The Change Order Price for all Unit Price Change Orders will be the amount set forth in the Change Order multiplied by the verified quantity provided.

7.2.2 Measurements of quantities to determine the total Change Order Price must be in accordance with MAG Specifications §§ 109.1 and 109.2.

7.2.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2.4 MAG Specification § 109.4.1 is modified as follows: Before § 109.4.1, the following is added: Any deduction or increase in the Agreement Price must be supported by a signed, written Change Order fully executed by City, and supported by such backup as the Project Manager may require.

7.3 SALES TAX

Contractor is required to pay all applicable sales tax in accordance with the law of the state of Arizona and this cost must be included in all Agreement Prices. When equipment, materials or supplies generally taxable to Contractor are eligible for a tax exemption due to the nature of the Project, Contractor must assist City in applying for and obtaining such tax credits and exemptions which will be paid or credited to City.

SECTION 8 - PAYMENT

8.1 PAYMENT FOR CONSTRUCTION SERVICES

8.1.1 Payment for the Work will be made in accordance with MAG Standard Specification § 109 as amended below.

8.1.2 Contractor must submit to City for review a completed Contractor Payment Request signed

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by Contractor, covering the Work completed as of the date of the Request and accompanied by such supporting documentation as is required by the Agreement Documents and also as City may reasonably require. A Contractor Payment Request will not be considered complete unless it is accompanied by an updated Project Schedule and a certification that the on-site, red lined, as built Drawings are up to date. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably, securely stored at the Site or at another location (such as a bonded warehouse) agreed to in writing, the Contractor Payment Request must also be accompanied by such data, satisfactory to City, as will establish City's title to the material and equipment and protect City's interest therein, including applicable insurance. Each subsequent Contractor Payment Request must include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge in full all of Contractor's obligations reflected in prior Contractor Payment Requests.

8.1.3 Except for Work performed under a JOC Agreement, the Contracting Agency will retain 10 percent of all estimates as a guarantee for complete performance of the Agreement in accordance with Arizona Revised Statutes Section 34-221 or 34-607. The Contractor may elect to deposit securities in lieu of retention in accordance with Arizona Revised Statutes Section 34-221, Paragraph C.5. or 34-607, Paragraph B.5. See Appendix 11 for City's standard form Construction Escrow Agreement, which must be fully executed prior to depositing funds into escrow account.

8.1.4 The payment process functions as follows: Prior to the payment cycle date, Contractor must send a draft Contractor Payment Request to Project Manager. The Project Team will review the Request and agree upon any necessary adjustments. Contractor must certify the final Request by signing and returning to Project Manager.

8.1.5 When construction of the Project is fifty percent (50%) completed, Contractor may request payment of one-half of the retention pursuant to A.R.S. § 34-609(B)(3), subject to all of City's rights to withhold or offset payments, and other rights of City, under the Agreement.

8.1.6 City reserves the right under A.R.S. § 34-609(B)(3) to reinstate the ten percent (10%) retention if City determines that satisfactory progress is not being made.

8.1.7 Contractor's Warranty of Title.

8.1.7.1 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Contractor Payment Request, whether incorporated in the Project or not, will pass to City at the time of payment, free and clear of all liens, claims, security interests, and encumbrances, provided that this will not preclude the Contractor from installing metering devices or other equipment of utility companies or municipalities, the title of which is commonly retained by the utility company or municipality.

8.1.7.2 No materials, supplies, or equipment for the Work under this Agreement will be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein, or any part thereof, is retained by the seller or supplier.

8.1.7.3 Nothing contained in this Section will defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this Section must be inserted in all subcontracts and material agreements, and notices of its provision must be given to all persons furnishing materials

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for the Work when no formal agreement is entered into for such materials.

8.2 **PAYMENT UPON SUBSTANTIAL COMPLETION**

8.2.1 No payment will be made upon Substantial Completion, except for a regularly-scheduled monthly progress payment, as allowed by Section 8.2.2.

8.2.2 No further payments will be made to Contractor until Final Acceptance.

8.3 **FINAL PAYMENT**

8.3.1 Subject to all of City's rights to withhold or offset payment, and other rights under the Agreement, Final Payment including remaining retainage will be paid only after:

a. Work has been fully completed (including completion of all incorrect or incomplete work items) and the written Final Acceptance has been issued by City;

b. Necessary operating manuals, any excess materials and supplies necessary for matching materials and supplies incorporated into the Work, acceptable sewer video results (if applicable), and complete "as-built" Drawings (including the Building Information Model, if required by the Agreement Documents) have been delivered to City, as specified in this Section 8.3;

c. Full and unconditional lien waivers and releases by Contractor and any person performing labor or supplying material, machinery, fixtures, or tools for the Work have been delivered to Contractor;

d. All conditions and requirements imposed by City or any financing entity for the corresponding disbursement have been met; and

e. Contractor delivers to City a Contractor Payment Request requesting Final Payment.

8.3.2 Contractor must also submit a signed copy of Contractor's Affidavit Regarding Settlement of Claims, Appendix 3 to these General Conditions, and Certificate of Completion, Appendix 7 to these General Conditions, prior to Final Payment.

8.3.3 In addition, if required under the Project Specific Special Provisions, Contractor must compile a complete equipment list and maintenance manual to be submitted to City as a precondition to Final Payment. The list must include the following items for all equipment supplied under the Plumbing, Electrical, Air Conditioning, Elevator, and other Special Equipment Specifications:

a. Name, Model and Manufacturer.

b. Complete parts lists and Drawings.

c. Local source of supply for replacement parts along with suppliers' telephone numbers.

d. Local service organizations serving the equipment and their telephone numbers.

e. All tags, inspection slips, instruction packages, etc., removed from equipment must be properly identified as to pieces of equipment from

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which they were taken.

8.3.4 Contractor must also deliver to City, prior to Final Payment, one (1) digital (in the format specified by City), and if requested by City, one (1) hard copy, of any applicable Maintenance manuals. Each manual must include all manufacturer's operation and maintenance instructions and "as-built" Drawings with the list herein specified. It must also include all other diagrams and instructions necessary to properly operate and maintain the equipment, the name, address and telephone number of Contractor and all Subcontractors involved.

8.4 **CITY'S RIGHT TO WITHHOLD PAYMENT**

City may withhold payment to such extent as may be necessary in City's opinion to protect City from loss for which Contractor is responsible, including, without limitation, if any of the following conditions exist:

a. Defective Work not remedied;

b. Third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to City is provided by Contractor;

c. Failure of Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

d. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Agreement Price;

e. Damage to City or another Contractor;

f. Reasonable evidence that the Work will not be completed within the Agreement Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

g. Failure to carry out the Work in accordance with the Agreement Documents; or

h. Contractor is in default of any of its other obligations under the Agreement Documents.

8.5 **JOINT/DIRECT CHECKS**

To promote the timely completion and progress of the Work or when appropriate and necessary, payments to Contractor may be made jointly to Contractor and its employees, agents, Subcontractors and suppliers, or any of them. For federally funded agreements, see federal provisions for additional requirements for the joint check process.

8.6 **PAYMENT NOT A WAIVER**

No payment (nor use or occupancy of the Project by City) will be deemed acceptance or approval of the Work or as a waiver of any claims, rights, or remedies of City.

8.7 **LIENS AND BOND CLAIMS**

Contractor must make all payments, in the time required, of all labor and materials furnished to Contractor in the course of the Work and must promptly furnish evidence of such payments as City may require. Contractor must pay when due all claims arising out of performance of the Work covered by this Agreement for which a lien may be filed either against the real estate or leasehold interest of City, or against payments due from City to Contractor, or for which a claim may be made against any payment or performance bond

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or both. To the fullest extent permitted by law, Contractor agrees that no liens or other claims in the nature of a lien against the real estate, leasehold, or other interest of City, against payment due from City to Contractor, or against any payment or performance bond, must be filed or made in connection with the Work by any party who has supplied professional services, labor, materials, machinery, fixtures, tools, or equipment used in or in connection with the performance of this Agreement, and Contractor agrees to remove or to cause to be removed any such liens or claims in the nature of a lien or bond claim within 10 Days upon receiving notice or obtaining actual knowledge of the existence of such liens or claim. In addition, Contractor agrees to defend, indemnify, and hold harmless City from and against any and all such liens and claims. This paragraph does not apply to claims and liens of Contractor due to non-payment for work performed.

8.8 **FINANCIAL RECORDKEEPING AND CITY'S AUDIT RIGHT**

8.8.1 Records for all Agreements between City and Contractor must, upon reasonable notice, be open to inspection and subject to audit, scanning, and reproduction during normal business working hours. Such audits may be performed by any City's representative or any outside representative engaged by City for the purpose of examining such records. City or its designee may conduct such audits or inspections throughout the term of this Agreement and for a period of five years after Final Payment or longer if required by law. City's representatives may (without limitation) conduct verifications such as counting employees at the Site, witnessing the distribution of payroll, verifying information and amounts through interviews and written confirmations with Contractor employees, field and agency labor, Subcontractors, and vendors.

8.8.2 Contractor's "records" must include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in City's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Agreement Document. Such records must include (hard copy, as well as computer readable data if it can be made available), written policies and procedures; time sheets; payroll registers; payroll records; cancelled payroll checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, negotiation notes, etc.); original bid estimates; estimating work sheets; correspondence; Change Order files (including documentation covering negotiated settlements); back-charge logs and supporting documentation; invoices and related payment documentation; general ledger, information detailing cash and trade discounts earned, insurance rebates and dividends; and any other Contractor records which may have a bearing on matters of interest to City or the Project in connection with Contractor's dealings with City or the Project (all foregoing hereinafter referred to as "records") to the extent necessary to adequately permit evaluation and verification of any or all of the following:

a. Compliance with Agreement requirements for deliverables;

b. Compliance with approved Plans and Specifications;

c. Compliance with § 14.9 below;

d. Compliance with Agreement provisions regarding the pricing of Change Orders;

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e. Accuracy of Contractor representations regarding the pricing of invoices; or

f. Accuracy of Contractor representations related to claims submitted by Contractor or any of their employees.

8.8.3 Contractor must require all payees (examples of payees include Subcontractors, Suppliers, Insurance Carriers, etc.) to comply with the provisions of this Section by including the requirements hereof in a written agreement between Contractor and payee. Contractor will ensure that all payees (including those entering into lump sum agreements) have the same right to audit provisions contained in this Agreement included in their agreements with Contractor.

8.8.4 City's authorized representative(s) (including, without limitation, Project Manager) must have reasonable access to Contractor's facilities, must be allowed to interview all current or former employees to discuss matters pertinent to the performance of this Agreement and must be provided adequate and appropriate work space, in order to conduct audits in compliance with this Section.

8.8.5 If an audit inspection or examination in accordance with this Section, discloses overpricing or overcharges to City (of any nature) by Contractor or Contractor's Subcontractors in excess of $100,000 in addition to making adjustments for the overcharges, the reasonable actual cost of City's audit must be reimbursed to City by Contractor. Any adjustments or payments which must be made as a result of any such audit or inspection of Contractor's invoices or records must be made within a reasonable amount of time (not to exceed 90 Days) from presentation of City's findings to Contractor.

8.8.6 In addition to the normal paperwork documentation Contractor typically furnishes to City, Contractor agrees to furnish, upon written request from City, any of the documentation necessary for City to exercise its audit rights under this Section 8.8 in computer readable file formats (Word, Excel, or .pdf), as City may designate.

8.8.7 City, its authorized representative, and the appropriate agency, reserve the right to audit Contractor's records in compliance with local, state or federal policies, statutes or at City's discretion, within three (3) years of Final Acceptance of the Work.

SECTION 9 - CHANGES TO THE AGREEMENT

9.1 **FIELD ORDERS**

City may authorize minor changes in the Work not involving an adjustment in the Agreement Price or the Agreement Times, which are consistent with the overall intent of the Agreement Documents. These may be accomplished by a written Field Order on the standard form approved and executed by City. Such Field Orders must be binding and Contractor must perform the change promptly. If Contractor believes that a Field Order justifies an increase in the Agreement Price or Agreement Time, Contractor may make a claim therefor as provided in Section 7.2.

9.2 **EXTRA WORK/CHANGES IN THE WORK**

9.2.1 City reserves the right to make such changes in the Plans and Specifications for the Work, as it may deem appropriate and any such change as set forth in a written Change Order must be deemed a part of this Agreement as if originally incorporated herein.

9.2.2 In the event City and Contractor cannot agree on the terms of a Change Order, or

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when circumstances otherwise require, the Project Manager has the authority to direct the Contractor to perform extra work, if the work in question is an item not provided for in the Agreement as awarded. The Project Manager will have the authority to determine, based upon factual evidence presented by the Contractor, whether the work in question is an item not provided for in the Agreement as awarded. If the Project Manager directs the Contractor to perform extra work, the Project Manager's instructions will include a price that the Contractor cannot exceed in charging the City for the extra work. Upon receipt of the Project Manager's directions to perform extra work, the Contractor must promptly proceed with the extra work and document the actual cost thereof. Contractor's right to payment for extra work will be determined under Subsection 9.2.4 below. The Contractor is responsible to manage the extra work to ensure that the price limits set by the Project Manager are not exceeded. Contractor must perform the extra work and submit documentation for the actual cost of the extra work to the City. A Change Order will be issued to cover this work.

9.2.3 Contractor will not be entitled to payment for extra work unless a written Change Order, in form and content prescribed by City, has been executed by City. On all requests for Change Orders, Contractor must specify the increased or decreased costs and whether it believes any extensions of time will be necessary to complete its Work as modified by the Change Order. If extra work is performed under Subsection 9.2.2 above, a corresponding Change Order will be prepared, approved and processed by City before payment can be made to Contractor.

9.2.4 In general, pricing for Change Orders will include the same mark-up percentages that were in effect when the Agreement was awarded. The cost or credit to the City resulting from a change in the Work is subject to Appendix 1 (Policy Statement for Calculating Delays and Damages) and will be determined, based on the type of pricing for the Agreement involved, as follows:

a. By mutual acceptance of a lump sum properly itemized in a form acceptable to City;

b. By unit prices stated in the Agreement Documents;

c. When the City determines that a Unit Price Book Job Order associated with a Job Order Agreement requires a Change Order, by using the same Total Cost Data and CCI that are in effect when the Change Order is anticipated to be issued; or

d. By actual cost and a percentage fee covering overhead and profit, as follows:

(i) Contractor will perform the extra work and be compensated for actual cost of labor, materials and equipment.

(ii) Contractor will have the right to add the fee percentage applicable to the Work under the Agreement, or if no such fee has been agreed to by the parties, not more than five percent (5%) to the Subcontractor's prices for authorized extra work performed solely by Subcontractors. Such percentage will include all of Contractor's charges for overhead, profit, administration and supervision.

(iii) Contractor or Subcontractor will have the right to add the fee percentage applicable to Work under the Agreement for self-performed extra work, or if no such fee has been agreed to by the

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parties, Contractor's or Subcontractor's maximum total allowable additions for overhead, profit, administration and supervision will not exceed ten percent (10%) of actual verifiable labor, materials and equipment for such self- performed extra work.

9.2.5 Any agreement which modifies the terms of the Agreement (including Change Orders) will be approved in writing by the Project Manager. Once properly executed by both parties, these modifications to the Agreement will have the same effect as if they had been included in the original Agreement.

9.3 **ACCURACY OF CHANGE ORDER PRICING INFORMATION**

9.3.1 Subject to Sections 9.3.2 through 9.3.4, signature by the contracting parties constitutes full accord and satisfaction between City and Contractor for all costs, damages, and expenses of whatever kind of nature, including delay, impact or acceleration damages, which may be occasioned by a Change Order of other modification of the Agreement agreed to in writing.

9.3.2 Accurate Change Order Pricing Information: Contractor agrees that it is responsible for submitting accurate cost and pricing data to City to support its Fixed Price, Unit Price, or Cost Plus Change Order Proposals or other Agreement Price adjustments under the Agreement. Contractor further agrees to submit Change Order proposals with cost and pricing data which is accurate, complete, current, and in accordance with the terms of the Agreement with respect to pricing of change orders. Contractor agrees that any "buy-out savings" on Change Orders will accrue 100% to Owner. "Buy-out savings" are defined as any savings negotiated by the Contractor with a Subcontractor or a Material Supplier after receiving approval of a Change Order amount that was designated to be paid to a specific Subcontractor or Supplier for the Approved Change Order work.

9.3.3 Right to Verify Change Order Pricing Information: Contractor agrees that City, through its designated representative, will have the right to examine, copy, and scan the records of the Contractor, Subcontractor or Sub-Subcontractor's records (during the Agreement period and up to three years after final payment is made on the Agreement) to verify the accuracy and appropriateness of the pricing data used to price all Change Order proposals or claims. Contractor agrees that if City determines the cost and pricing data submitted (whether approved or not) was inaccurate, incomplete, not current, or not in compliance with the terms of the Agreement regarding pricing of Change Orders, an appropriate Agreement Price adjustment will be made. Such post-approval Contact Price adjustments will apply to all levels of contractors and Subcontractors and to all types of Change Order proposals, specifically including Fixed Price, Unit Price, and Cost Plus Change Orders.

9.3.4 Requirements for Detailed Change Order Pricing Information: Contractor agrees to provide a detailed breakdown of allowable labor and labor burden cost (i.e., base wage rate of applicable classifications of workers, payroll taxes, and insurance and benefits costs). This information will be used to evaluate the potential cost of labor and labor burden related to Change Order work. It is intended that this information represent an accurate estimate of the Contractor's actual labor and labor burden cost components. Information is not intended to establish fixed billing or Change Order pricing labor rates. However, at the time Change Orders are priced, the submitted cost data for labor rates may be used to price Change Order work. The accuracy of any such agreed upon labor rate cost components used to price Change Orders will be subject to later audit. Approved Change Order

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amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed upon labor cost components are determined to be inaccurate.

9.4 **EMERGENCIES**

In any emergency affecting the safety of persons or property, Contractor will act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Agreement Price or Agreement Time resulting from emergency work will be determined as provided in this Section.

9.5 **DIFFERING SITE CONDITIONS**

9.5.1 If Differing Site Conditions are encountered at the Project Site, then notice by the observing party must be given to the other party promptly before conditions are disturbed (to the extent practicable) and in no event later than 14 Days after first observance of the conditions. City will promptly investigate such conditions and, if City determines that Differing Site Conditions exist and they materially cause an increase in the cost of, or time required for, performance of any part of the Work, Contractor will be entitled to equitable adjustment in the Agreement Price or Construction Schedule (and other time requirements), or both. If it is determined by City that the conditions at the Project Site are not Differing Site Conditions and no change is justified, then City will so notify Contractor in writing, stating the reasons. Claims in opposition to such determination must be made within 14 Days after City has given notice of its decision. If City and Contractor cannot agree on an adjustment in the Agreement Price or Construction Schedule (and other time requirements), the adjustment may be submitted to dispute resolution as provided these General Conditions.

9.6 **CHANGES IN LAWS, REGULATIONS, OR LEGAL REQUIREMENTS OR TAXES**

In the event of a material change in applicable Laws, Regulations, or Legal Requirements, or taxes subsequent to the date of the Agreement by the parties, Contractor may be entitled to a Change Order, in City's discretion, to the extent Contractor can document to the satisfaction of City that such change significantly increases Contractor's actual cost of performance of the Work.

SECTION 10 -SUSPENSION AND TERMINATION

10.1 **SUSPENSION**

City may suspend the Agreement and Contractor's performance in accordance with MAG Specifications § 105.1 and 108.7.

10.2 **TERMINATION BY THE CITY FOR CAUSE**

10.2.1 MAG Specifications § 108.11 applies to the Agreement.

10.2.2 City may also terminate the Agreement if City determines, in its sole discretion that Contractor has:

a. After prior written notice, refused or failed to supply enough properly skilled workers or proper materials;

b. After prior written notice, failed to make payment to Subcontractors for materials or labor in accordance with the respective agreements between Contractor and the Subcontractors;

c. After prior written notice, disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction;

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d. After prior written notice, repeatedly failed to comply with written directives from City;

e. Is adjudged as bankrupt or insolvent;

f. Made a general assignment for the benefit of creditors;

g. Appointed a trustee or receiver for itself or any of its property;

h. Filed a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws; or

i. Otherwise breached a provision of the Agreement Documents or any other Agreement between City and Contractor.

10.2.3 When any of the above reasons exist, City may terminate the Agreement, without prejudice to any other rights or remedies of City, after giving Contractor and Contractors' surety, if any, 7 Days written notice of City's intent to terminate the Agreement and Contractor's failure to cure any such reasons. Upon such termination, City may: (1) take possession of the Site and of all materials thereon owned by Contractor; or (2) finish the Work by whatever reasonable method City may deem expedient. When City terminates the Agreement for one of the reasons state above, Contractor will not be entitled to receive further payment until the Work is finished. If the unpaid balance of the Agreement Price existing at the time of such termination exceeds the costs and expenses of finishing the Work and any other damages incurred by City, such excess will be paid to Contractor. If such costs, expenses and damages exceed such unpaid balance, Contractor must pay the difference to City. This obligation for payment will survive termination of the Agreement.

10.3 **TERMINATION BY CITY FOR CONVENIENCE**

City may also terminate the Agreement at any time for its convenience upon 7 Days written notice to Contractor specifying the termination date. In the event of termination which is not the fault, in whole or in part, of Contractor, City will pay to Contractor only such compensation, including reimbursable expenses, due for Work properly performed on the Project prior to the termination date. Upon any termination of the Agreement, no further payments will be due from City to Contractor.

10.4 **A.R.S. § 38-511**

The Agreement is subject to, and may be terminated by City in accordance with, the provisions of A.R.S. § 38-511.

SECTION 11 -INSURANCE AND BONDS

11.1 **INSURANCE REQUIREMENTS**

11.1.1 After Agreement award, the Contractor must furnish the City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement may not be deemed to apply to required Worker's Compensation coverage.

11.1.2 The Contractor and any of its Subcontractors must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

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11.1.3 The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

11.1.4 The City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Contractor from liabilities that might arise out of the performance of the Agreement services under this Agreement by Contractor**,** its agents, representatives, employees, or Subcontractors and the Contractor is free to purchase any additional insurance as may be determined necessary.

11.1.5 Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve the Contractor from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

11.1.6 Use of Subcontractors: If any Work is subcontracted in any way, the Contractor must execute a written agreement with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of the Contractor in this Agreement. The Contractor is responsible for executing the Agreement with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

11.2 **MINIMUM SCOPE AND LIMITS OF INSURANCE**

11.2.1 The Contractor must provide coverage with limits of liability not less than those stated below.

11.2.1.1 Commercial General Liability-Occurrence Form. Contractor must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.2 Automobile Liability-Any Automobile or Owned, Hired and Non-Owned Vehicles. Contractor must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Contractor owned, hired, and non-owned vehicles assigned to or used in the performance under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.3 Workers Compensation and Employers Liability Insurance. Contractor must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor employees engaged in the performance of Work under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

11.2.1.4 Builders' Risk/Installation Floater Insurance. The Contractor bears all responsibility for loss to all equipment or Work under construction. Unless waived in writing by the City the Contractor will purchase and maintain in force Builders' Risk/Installation Floater insurance on the entire Work until completed and accepted by the City. This insurance will be Special Causes of Loss policy form, (minimally including perils of fire, flood, lightning, explosion,

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windstorm and hail, smoke, aircraft and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, and collapse), completed value, replacement cost policy form equal to the Agreement Price and all subsequent modifications. The Contractor's Builders' Risk/Installation Floater insurance must be primary and not contributory.

a. Builders' Risk/Installation Floater insurance must cover the entire Work including reasonable compensation for architects and engineers' services and expenses and other "soft costs" made necessary by an insured loss. Builders' Risk/Installation Floater insurance must provide coverage from the time any covered property comes under the Contractor's control and or responsibility, and continue without interruption during course of construction, renovation and or installation, including any time during which any Project property or equipment is in transit, off Site, or while on Site for future use or installation. Insured property must include, but not be limited to, scaffolding, false work, and temporary buildings at the Site. This insurance must also cover the cost of removing debris, including demolition as may be legally required by operation of any law, ordinance, regulation or code.

b. The Contractor must also purchase and maintain Boiler and Machinery insurance with the same requirements as Builders' Risk/Installation Floater insurance cited above if the Work to be performed involves any exposures or insurable property normally covered under a Boiler and Machinery insurance policy or made necessary as required by law or testing requirements in the performance of this Agreement. The Contractor will be responsible for any and all deductibles under these policies and the Contractor waives all rights of recovery and subrogation against the City under the Contractor- Builders' Risk/Installation Floater insurance described herein.

c. Builders' Risk/Installation Floater Insurance must be maintained until whichever of the following first occurs: (i) final payment has been made; or, (ii) until no person or entity, other than the City, has an insurable interest in the property required to be covered.

d. The Builders' Risk/Installation Floater insurance must be endorsed so that the insurance will not be canceled or lapse because of any partial use or occupancy by the City.

e. The Builders Risk/Installation Floater insurance must include as named insureds, the City, the Contractor, and all tiers of Subcontractors and others with an insurable interest in the Work who will be named as additional insureds unless they are able to provide the same level of coverage with the City and Contractor named as additional insureds. Certificates must contain a provision that the insurance will not be canceled or materially altered without at least 30 Days advance notice to the City. The City must also be named as a Loss Payee under the Builders' Risk/Installation Floater coverage.

f. The Builders Risk/Installation Floater insurance must be written using the Special Causes of Loss policy form, replacement cost basis.

g. All rights of subrogation under the Builders Risk/Installation Floater insurance are, by this Agreement, waived against the City, its officers, officials, agents and employees.

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h. The Contractor is responsible for payment of all deductibles under the Builders' Risk/Installation Floater insurance policy.

11.2.1.5 Pollution Liability Insurance (Including Errors and Omissions). For Job Orders, Pollution Liability Insurance is only required if applicable and determined on a project specific basis. Contractor must maintain Pollution Liability Insurance with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate for losses caused by pollution conditions including coverage for bodily injury, property damage, defense costs, clean-up costs, and completed operations that arise from the operations of Contractor as described in this Agreement.

a. The policy must provide for complete professional service coverage, including coverage for pollution liability that is a result of a breach of professional duties.

b. The policy must provide for protection again claims for third-party bodily injury, property damage, or environmental damage caused for pollution conditions resulting from general contracting activities for which Contractor is legally liable.

c. The policy must provide for cleanup costs when mandated by governmental entities, when required by law, or as a result of third-party claims.

d. Completed Operations Coverage must be kept in place for up to the statute of repose.

e. The policy must be endorsed to include the following additional insured language: "City, its elected officials, trustees, employees, agents, and volunteers must be named as additional insureds with respect to liability arising out of the activities performed by, or on behalf of Contractor".

f. If Work under this Agreement requires the transportation of any hazardous material or regulated substances, Contractor must carry Auto Liability with a CA 9948 endorsement or equivalent.

g. If Work under this Agreement requires the disposal of any hazardous materials from the job site, Contractor must obtain a certificate of insurance for Pollution Legal Liability from the disposal site operator with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate.

11.2.1.6 Cyber Technology Errors and Omissions, Network Security, and Privacy Liability Insurance. The policy must cover professional misconduct or lack of ordinary skill for those positions defined in the Scope of Services of this Agreement with a limit of not less than $5,000,000 for each occurrence, $5,000,000 aggregate. In the event that the professional liability insurance required by this Agreement is written on a claims-made basis, Contractor warrants that any retroactive date under the policy must precede the effective date of this Agreement; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Agreement is completed. If such insurance is maintained on an occurrence form basis, Contractor must maintain such insurance for an additional period of one (1) year following termination of Agreement. If such insurance is maintained on a claims-made basis, Contractor must maintain such insurance for an additional period of three (3) years following termination of the Agreement. If Contractor contends that any of the insurance it maintains pursuant to other sections of this Exhibit C satisfies this requirement (or

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otherwise insures the risks described in this section), then Contractor must provide proof of same.

The insurance must provide coverage for the following risks:

1. Liability arising from theft, dissemination, or use of confidential information (a defined term including but not limited to bank account, credit card account, personal information such as name, address, social security numbers, etc. information) stored or transmitted in electronic form.
2. Network Security Liability arising from the unauthorized access to, use of, or tampering with computer systems including hacker attacks, inability of an authorized third party, to gain access to your services including denial of service, unless caused by a mechanical or electrical failure.
3. Liability arising from the introduction of a computer virus into, or otherwise causing damage to, a customer's or third person's computer, computer system, network, or similar computer related property and the data, software, and programs thereon.

The policy must provide a waiver of subrogation.

11.3 **ADDITIONAL POLICY PROVISIONS REQUIRED**

11.3.1 Self-Insured Retentions or Deductibles. Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

11.3.2 The Contractor's insurance must contain broad form contractual liability coverage.

11.3.3 The Contractor's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees will be in excess of the coverage provided by the Contractor and must not contribute to it.

11.3.4 The Contractor's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

11.3.5 Coverage provided by the Contractor must not be limited to the liability assumed under the indemnification provisions of this Agreement.

11.3.6 The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by the Contractor for the City.

11.3.7 The Contractor, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. The Contractor must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Agreement insurance requirements, including naming the required Additional Insureds set forth herein.

11.3.8 If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably

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rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

11.3.9 Insurance Cancellation During Agreement Term.

11.3.9.1 If any of the required policies expire during the life of this Agreement, the Contractor must forward renewal or replacement Certificates to the City within 10 Days after the renewal date containing all the required insurance provisions.

11.3.9.2 Each insurance policy required by the insurance provisions of this Agreement must provide the required coverage and must not be suspended, voided or canceled except after 30 Days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then 10 Days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the require notice, the Contractor or its insurance broker must notify the City of any cancellation, suspension, non-renewal of any insurance within 7 Days of receipt of insurers' notification to that effect.

11.3.10 City as Additional Insured. The above-referenced policies are to contain, or be endorsed to contain, the following provisions:

11.3.10.1 The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, the Contractor including the City's general supervision of the Contractor; Products and Completed Operations of the Contractor; and automobiles owned, leased, hired, or borrowed by the Contractor.

11.3.10.2 The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Agreement.

11.4 **BONDS AND OTHER PERFORMANCE SECURITY**

11.4.1 After Agreement award, Contractor must provide a Performance Bond and a Payment Bond, each in an amount equal to the full amount of the Agreement Price.

11.4.2 Each such bond must be executed by a surety company or companies holding a Certificate of Authority to transact surety business in the State of Arizona, issued by the Director of the Arizona Department of Insurance and must be named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. A copy of the Certificate of Authority must accompany the bonds. The Certificate must have been issued or updated within two (2) years prior to the execution of this Agreement. The bonds must be written or countersigned by an authorized representative of the surety who is either a resident of the state of Arizona or whose principal office is maintained in this state, as by law required.

11.4.3 The bonds must be made payable and be acceptable to City. The bond forms for the performance and payment bonds must be in the forms required under A.R.S. § 34-221, *et. Seq.,* as in Appendices 4 and 5 of these General Conditions.

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11.4.4 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Agreement Documents, Contractor must promptly furnish a copy of the bonds or must permit a copy to be made.

11.4.5 All bonds submitted for this Project must be provided by a company which has been rated AM Best rating of A- or better for the prior four quarters by the latest edition of the 'Results Best's Key Rating Guide (Property/Casualty)" published by the A.M. Best Company.

11.4.6 Personal or individual bonds are not acceptable.

11.4.7 If the surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent, or Contractor's right to do business is terminated in any state where any part of the Project is located, or it ceases to meet the requirements of this Section 11.4, Contractor must within 5 Days thereafter substitute another Bond and surety, both of which must be acceptable to City.

SECTION 12 - INDEMNIFICATION

12.1 To the extent permitted by law, the Contractor and its owners, officers, directors, agents, employees, and subconsultants (collectively "lndemnitor") must indemnify, save, and hold harmless the City and its officers, officials, agents, and employees (collectively "lndemnitee") from any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation, and litigation) (collectively "Claims") caused or alleged to be caused, in whole or in part, by the negligent, reckless, wrongful, or willful acts, errors, or omissions of Indemnitor in connection with this Agreement. This indemnity includes any Claim or amount arising out of or recovered under workers' compensation laws or on account of Indemnitor's failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, or court decree. Indemnitor must indemnify lndemnitee from and against any and all Claims, except those arising solely from lndemnitee's own negligent, reckless, wrongful, or willful acts, errors, or omissions. Indemnitor is responsible for primary loss investigation, defense, and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Indemnitor agrees to waive all rights of subrogation against lndemnitee for losses arising from or related to this Agreement. Indemnitor's obligations under this provision survive the termination or expiration of this Agreement.

SECTION 13 -DISPUTE RESOLUTION

13.1 All disputes arising out of or relating to the Agreement, the Work or the Project, other than termination under Section 10, will be resolved pursuant to the Dispute Resolution process set forth in Appendix 6 of these General Conditions, and not pursuant to MAG Specifications § 110.

13.2 Contractor agrees that during any dispute between the parties, Contractor will continue to perform its obligations under the Agreement until such dispute is resolved.

13.3 Notwithstanding any other provision in this Agreement, City has the right to immediately file in court and pursue an action for a temporary restraining order and injunctive relief against Contractor if City determines that such action is necessary to protect its interests under the Agreement, to obtain specific performance of any provision of the Agreement, to advance the completion of the Project, or to protect health, welfare and safety.

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SECTION 14 - MISCELLANEOUS PROVISIONS

14.1 AGREEMENT DOCUMENTS

14.1.1 The Agreement Documents are intended to permit the parties to complete the Work and all obligations required by the Agreement Documents within the Agreement Times for the Agreement Price. The Agreement Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

14.1.2 It is the intent of the Agreement Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Agreement Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Agreement Documents or from prevailing custom or trade usage as being required to produce the intended result must be provided by Contractor whether or not specifically called for at no additional cost to City.

14.1.3 The Agreement Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Agreement Documents), Contractor's Bid or Proposal (including documentation accompanying the Bid and any post-Bid documentation submitted prior to Agreement award) when attached as an exhibit to the Agreement, the accepted Project Schedule, the Notice to Proceed, the Performance Bond, the Payment Bond, Project Design, Engineering and Specifications, these General Conditions, the Project Specific Special Provisions, Technical Specifications, Agreement Drawings, as the same may be more specifically identified in the Agreement, Change Orders, Work Change Directives, Field Orders and the written interpretations and clarifications of the Design Professional or City representative and Modifications issued after execution of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Agreement Documents.

14.1.4 In the event of any inconsistency, conflict, or ambiguity between or among the Agreement Documents, the Agreement Documents will take precedence as follows from highest to lowest: Change Orders, Addenda, Agreement, Project Specific Special Provisions, General Conditions, Technical Specifications, Drawings/Plans, Chandler Amendments to MAG Standard Specifications and Chandler Standard Details, and MAG Uniform Standard Specifications and Details for Public Works Construction. If applicable to this Agreement, Federal Provisions prevail.

14.1.5 On the Drawings, given dimensions will take precedence over scaled measurements and large scale drawings over small-scale drawings.

14.1.6 Clarifications and interpretations of the Agreement Documents will be issued by the Design Professional through the City.

14.1.7 The headings used in this Agreement or any other Agreement Documents, are for ease of reference only and must not in any way be construed to limit or alter the meaning of any provision.

14.1.8 The Agreement Documents form the entire agreement between City and Contractor. No oral representations or other agreements have been made by the parties except as specifically stated in the Agreement Documents.

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14.1.9 The Agreement Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party in the form of a Change Order.

14.1.10 Re-Use of Documents. Neither Contractor nor any Subcontractor, manufacturer, fabricator, supplier or distributor will 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 the Design Professional; and they must not re-use any of them on extensions of the Project or any other project without written consent of City and the Design Professional and specific written verification or adaptation by the Design Professional.

14.2 **REFERENCE STANDARDS**

14.2.1 Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, will mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Agreement Documents.

14.2.2 The provisions of any such standard, specification, manual or code, or any instruction of a Supplier will not change the duties or responsibilities of City, Contractor, Design Professional or Project Manager, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Agreement Documents, nor will any such provision or instruction assign to City, Contractor, Design Professional, or any of their agents, or employees 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 Agreement Documents.

14.3 **COMPLIANCE WITH ARIZONA LAW AND FEDERAL LAW**

14.3.1 Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Contractor hereby warrants to the City that the Contractor and each of its subcontractors ("Subcontractors") must comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A).

14.3.2 A breach of the Contractor Immigration Warranty constitutes a material breach of this Agreement and subject to penalties up to and including termination of this Agreement.

14.3.3 The City retains the legal right to inspect the papers of any Contractor or Subcontractor employee who works on this Agreement to ensure that the Contractor or Subcontractor is complying with the Contractor Immigration Warranty. The Contractor agrees to assist the City in the conduct of any such inspections.

14.3.4 The City may, at its sole discretion, conduct random verifications of the employment records of the Contractor and any Subcontractors to ensure compliance with Contractors Immigration Warranty. The Contractor agrees to assist the City in performing any such random verifications.

14.3.5 The provisions of this Article must be included in any agreement the Contractor enters into with any and all of its subcontractors who provide services under this Agreement or any

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subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

14.4 **HAZARDOUS ENVIRONMENTAL CONDITIONS**

14.4.1 Contractor will not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Agreement Document to be within the scope of the Work. Contractor will be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

14.4.2 If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition. Contractor must immediately:

a. Secure or otherwise isolate such condition;

b. Stop all Work in connection with such condition and in any area affected thereby; and

c. Notify City and promptly thereafter confirm such notice in writing.

14.4.3 City will promptly retain a qualified expert to evaluate such condition or take corrective action, if any.

14.4.4 Contractor will be responsible for any and all civil or criminal penalties, fines, damages, or other charges imposed by any regulatory agency or court for sewage discharges that are in violation of applicable statutes and laws and that are a result, direct or indirect, of work performed under this Agreement. Contractor will also be responsible for reimbursement to City for administration, reporting, and tracking expenses required as a result of any spill event. In the event the regulatory agency or court imposes a probationary period, Contractor must post bond for the probationary period to ensure that all such costs are reimbursed to City. This responsibility will apply whether penalties are imposed directly on Contractor or any of its Subcontractors, or the City of Chandler. Contractor must defend and indemnify City against such penalties. Regulatory agencies may include, but are not limited to, the Arizona Department of Environmental Quality (ADEQ) and the United States Environmental Protection Agency (USEPA).

14.5 **COOPERATION AND FURTHER DOCUMENTATION**

Contractor agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of the Agreement Documents.

14.6 **ASSIGNMENT**

Neither Contractor nor City will, without the written consent of the other assign, transfer or sublet any portion of this Agreement or part of the Work or the obligations required by the Agreement Documents, any such assignment will be void, will transfer no rights to the purported assignee, and would be a material breach of the Agreement.

14.7 **SUCCESSORS**

Contractor and City intend that the provisions of the Agreement Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

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14.8 **LAWFUL PRESENCE**

Pursuant to A.R.S. §§ 1-501 and 1-502, City is prohibited from awarding an agreement to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming the identification provided is genuine. This requirement will be imposed at the time of agreement award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

14.9 **NO BOYCOTT OF ISRAEL CERTIFICATION**

By Contractor's signature on this Agreement, Contractor certifies under A.R.S. § 35-393.01 that Contractor is not currently engaged in and for the duration of this Agreement will not engage in a boycott of Israel.

14.10 **NO THIRD PARTY BENEFICIARY**

Nothing under the Agreement Documents will be construed to give any rights or benefits in the Agreement Documents to anyone other than City and Contractor, and all duties and responsibilities undertaken pursuant to the Agreement Documents will be for the sole and exclusive benefit of City and Contractor and not for the benefit of any other party, unless otherwise expressly set forth in the Agreement Documents.

14.11 **GOVERNING LAW AND VENUE**

The Agreement and all Agreement Documents will be deemed to be made under, and will be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any court action to enforce any provision of the Agreement or to obtain any remedy with respect hereto must be brought in the Superior Court, Maricopa County, Arizona, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such Court.

14.12 **SEVERABILITY**

If any provision of the Agreement Documents or the application thereof to any person or circumstance will be invalid, illegal or unenforceable to any extent, the remainder of the affected provision, the remainder of the Agreement Documents, and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

14.13 **LEGAL REQUIREMENTS**

At all times relevant to its entry into this Agreement and performance of the Services and the Work, Contractor must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project, and the Agreement, including, without limitation, those set forth on Exhibit C of the Agreement.

14.14 **PARTIAL INVALIDITY**

If any provision of the Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

14.15 **ATTORNEYS' FEES**

Should either party to the Agreement bring an action to enforce any provision of the Agreement, the prevailing party will be entitled to recover reasonable attorneys' fees and costs in connection therewith.

14.16 **CONFLICT OF INTEREST**

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14.16.1 Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, existing prior to the execution of the Agreement. Further, Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, if Contractor gains such interest during the course of this Agreement. If Contractor gains financial or economic interest in the Project during the course of this Agreement, this may be grounds for terminating this Agreement. Any decision to terminate the Agreement must be at the sole discretion of City.

14.16.2 Contractor will not engage the services on this Agreement of any present City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Agreement Modifications for this Agreement.

14.16.3 Contractor agrees that it will not perform services on this Project for a contractor, subcontractor, or any supplier, not covered under this Agreement.

14.17 **INDEPENDENT CONTRACTOR**

Contractor is and must be an independent contractor. Any provisions in the Agreement Documents that may appear to give City the right to direct Contractor as to the details of accomplishing the Work or to exercise a measure of control over the Work means that Contractor must follow the wishes of City as the results of the Work only. These results must comply with all applicable laws and ordinances.

14.18 **NOTICE OF INJURY**

Should City or Contractor suffer injury or damage to their person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim must be made in writing to the other party within 7 Days of the first observance of such injury or damage.

14.19 **CONFIDENTIALITY**

Contractor, for the benefit of City, hereby agrees it will not release or cause or permit to be released to the public any press notices, publicity (oral or written) or advertising promotion relating to, any statement regarding, or any other public announcement or disclosure or cause or permit to be publicly announced or disclosed, in any manner whatsoever, the specific terms and conditions of this Agreement or any comment relating to the Project or the Site. Notwithstanding the foregoing, Contractor will be entitled to disclose the terms of the Agreement to the extent required by law or in the course of enforcing or defending a claim or action hereunder. Contractor must give City reasonably prompt notice of any disclosure or statement made pursuant to this provision.

14.20 **DATA CONFIDENTIALITY**

14.20.1 As used in the Agreement, "data" means all information, whether written or verbal, including plans, specifications, renderings, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to the City in the performance of this Agreement.

14.20.2 Contractor agrees that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to City in connection with the Contractor's performance of this Agreement is confidential and proprietary information belonging to City.

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14.20.3 Except as specifically provided in this Agreement, Contractor or its Subcontractors must not divulge data to any third party without prior written consent of City. Contractor or its Subcontractors must not use data for any purposes except to perform Work required under this Agreement. These prohibitions will not apply to the following data provided Contractor has first given the required notice to City:

a. Data which was known to Contractor or its Subcontractors prior to its performance under this Agreement unless such data was acquired in connection with Work performed for City;

b. Data which was acquired by Contractor or its Subcontractors in its performance under this Agreement and which was disclosed to Contractor or its Subcontractors by a third party, who to the best of Contractor's or its Subcontractor's knowledge and belief, had the legal right to make such disclosure and Contractor or its Subcontractors are not otherwise required to hold such data in confidence; or

c. Data which is required to be disclosed by virtue of law, regulation, or court order, to which the Contractor or its Subcontractors are subject.

14.20.4 In the event the Contractor or its Subcontractors are required or requested to disclose data to a third party, or any other information to which the Contractor or its Subcontractors became privy as a result of any other agreement with City, the Contractor must first notify City as set forth in this Section of the request or demand for the data. The Contractor or its Subcontractors must give City sufficient facts so that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure.

14.20.5 Unless prohibited by law, within 10 Days after completion of services for a third party on real or personal property owned or leased by City, the Contractor must promptly deliver, as set forth in this Section, a copy of all data to City. All data will continue to be subject to the confidentiality agreements of this Agreement.

14.20.6 Contractor or its Subcontractors assume all liability for maintaining the confidentiality of the data in its possession and agree to compensate City if any of the provisions of this Section are violated by Contractor, its employees, agents, or Subcontractors. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section will be deemed to cause irreparable harm that justified injunctive relief in court. Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. A violation of this Section may result in immediate termination of this Agreement without notice.

14.21 **SURVIVAL**

All warranties, representations and indemnifications by Contractor must survive the completion or termination of this Agreement.

14.22 **COVENANTS AGAINST CONTINGENT FEES**

Contractor warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of City Council, or any employee of City has any interest, financially, or otherwise, in the firm. For breach or violation of this warrant, City will have the right to annul the Agreement without liability or at its discretion to deduct from the Agreement Price or consideration, the full amount of such commission,

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percentage, brokerage, or contingent fee.

14.23 **NO WAIVER**

The failure of either party to enforce any of the provisions of the Agreement Documents or to require performance of the other party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor will it affect the validity of the Agreement Documents or any part thereof, or the right of either party to thereafter enforce each and every provision.

14.24 **NONEXCLUSIVE REMEDIES**

The remedies set forth in this Agreement are cumulative and not exclusive, and failure to exercise any remedy (including, without limitation, any right to terminate) will not preclude any party from exercising any other right in seeking any other remedy available to it at law or in equity.

14.25 **PROJECT COMMUNICATIONS**

14.25.1 All communications concerning the performance of the Work or the Project will be provided to the designated Project Manager and Contractor's Representative set forth in Article 1 of the Agreement. City may change the designated Project Manager and, subject to Section 4.4.20 of these General Conditions, Contractor may change Contractor Representative, by written notice to the other.

14.25.2 Project communications may be exchanged by e-mail, but email communications cannot change the terms of the Agreement or the Scope of Work, or effectuate any change that requires a written Change Order.

14.25.3 When any provisions of the Agreement Documents requires Contractor or the Design Professional to give written notice to City, it will be deemed to have been validly given if delivered in person or if delivered at or sent by registered or certified mail, postage prepaid, to the Parties indicated in Agreement Article 1, incorporated by reference.

14.25.4 When any provisions of the Agreement Documents requires City, Project Manager, or the Design Professional to give written notice to Contractor, it will be deemed to have been validly given if delivered in person to the person designated in the Agreement Documents as Contractor's Resident Superintendent, or if delivered at or sent by registered or certified mail, postage prepaid, to Contractor at the last address in the Agreement Documents or such substitute address which Contractor designates in writing, or to the business address known to the giver of notice.

14.26 **DRUG FREE WORKPLACE PROGRAM**

14.26.1 City has adopted a policy establishing a drug free workplace for itself and as a requirement for Contractors doing business with City, to ensure the safety and health of employees working on City projects.

14.26.2 Contractor must require a drug free workplace for all employees working under the Agreement. Specifically, all employees of Contractor who are working under an agreement with City must be notified, in writing, by Contractor that they are prohibited from the manufacture, distribution, dispensation, possession or unlawful use of a controlled substance in the workplace.

14.27 Failure to require a drug free workplace in accordance with the City's policy may result

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in termination of the Agreement and possible debarment form bidding on future City projects.

SECTION 15 - PROVISIONS APPLICABLE SOLELY TO GMP AND COST-BASED AGREEMENTS, CHANGE ORDERS, AND JOB ORDERS

15.1 ADDITIONAL DEFINITIONS

The definitions set forth in Section 2 apply to GMP and Cost-Based Agreements, Change Orders, and Job Orders, together with the additional definitions set forth below.

Baseline Cost Model –
A breakdown and estimate of the scope of the Project developed by CM@Risk pursuant to Section 17.5 of these General Conditions.

CM@Risk or Construction Manager at Risk –
The person or firm selected by City to provide pre-construction and/or construction services as detailed in a Construction Manager at Risk Agreement with City. In these General Conditions, the term "Contractor" includes CM@Risk under both Pre-Construction and Construction Services Agreements.

CM@Risk Fee or Contractor's Fee –
An agreed to percentage in an accepted GMP that represents the Contractor's fee for performance of the Work.

Agreement Documents –
Where compensation under the Agreement is based upon a GMP accepted by City, the term "Agreement Documents" also includes the accepted GMP Proposal.

Agreement Price –
Where compensation under the Agreement based upon a GMP accepted by City, the term "Agreement Price" refers to the GMP.

Cost-Based Agreement, Change Order, or Job Order –
A Agreement, Change Order, or Job Order where the Agreement Price is based upon the actual cost of performing the Work, subject to the terms of the Agreement Documents, including this Section 15. These would include those generally referred to as "Cost of the Work plus a Fee with a GMP," "Time and Materials," or "Cost Plus a Fee."

Cost of the Work –
The direct costs necessarily incurred by Contractor in the proper, timely, and complete performance on the Work. The Cost of the Work will include only those costs set forth in Section 15.2 of these General Conditions.

Deliverables –
The work products prepared by Contractor in performing the scope of work described in the Agreement. Some of the major deliverables to be prepared and provided by Contractor during pre-construction may include but are not limited to: the Baseline Cost Model and Schedule that validate City's plan and budget, Construction Management Plan, Detailed Project Schedule, Schedule of Values, alternative system evaluations, procurement strategies and plans, Detailed Cost Estimates, construction market surveys, cash flow projections, GMP Proposals, Subcontractor procurement plan, Subcontractor agreements, Subcontractor bid packages, Supplier agreements, Constructability Review, Cost Control Log, Traffic control and phasing plans and others as indicated in this Agreement or required by the Project Team.

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Pre-Construction Services Agreement –
The Agreement entered into between City and the CM@Risk for Pre-Construction Services to be provided by the CM@Risk, including, without limitation, the generation of a GMP Proposal. If the GMP Proposal is accepted by City and a Construction Agreement is entered into between City and CM@Risk, the duties, obligations and warranties of the CM@Risk under the Pre-Construction Services Agreement survive and are incorporated into the resulting Construction Agreement.

Pre-Construction Services –
The services to be provided under the Pre-Construction Services Agreement, including Section 17 of these General Conditions.

Detailed Project Schedule –
The Detailed Project Schedule developed by the CM@Risk for the review and approval of the Project Manager in accordance with Section 17.3 of these General Conditions, if applicable.

General Conditions Costs –
Those costs set forth in Section 4 of Appendix 9 to these General Conditions.

GMP Plans and Specifications –
The plan and specifications upon which the Guaranteed Maximum price Proposal is based.

GMP Proposal –
The proposal of Contractor submitted pursuant to Section 17.7 of these General Conditions for the entire Work and/or portion (phases) of the Work.

Guaranteed Maximum Price or GMP –
The Guaranteed Maximum Price set forth in the Agreement, Change Order, or Job Order if applicable.

15.2 **AGREEMENT PRICE**

15.2.1 The Agreement Price for all Agreements, Change Orders, and Job Orders based upon payment of the Cost of the Work plus a Fee with a GMP, time and materials, or cost-plus a fee will be the Cost of the Work incurred plus the Fee agreed to in writing by City, limited to the amount of the GMP, if agreed to. Unless otherwise expressly provided in the Agreement, Change Order, or Job Order, all Cost Based pricing will be subject to and limited to GMP.

15.2.2 The Agreement Price may only be changed as set forth in Section 9 above.

15.2.3 Only costs specifically designated as reimbursable costs are eligible for payment by City or may be charged against the Agreement Price. All other costs will not be paid by City and will not be chargeable against the Agreement Price.

15.2.4 Cost-Based Agreements. For Agreements, Change Orders, or Job Orders, reimbursable costs must be determined pursuant to Appendix 9 to these General Conditions, Cost of the Work, and not by MAG Specifications §109.5.

15.3 **ALLOWANCES**

15.3.1 Contractor must include in the Agreement Price all Allowances stated in the Agreement Documents and agreed to in writing by City. Items covered by these Allowances must be supplied for such amounts and by such persons as City may direct, provided Contractor will

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not be required to employ persons against whom Contractor makes a reasonable objection. Materials, labor, and equipment under an Allowance will be selected by City in accordance with a schedule to be mutually agreed upon by City, Design Professional and Contractor or otherwise in reasonably sufficient time to avoid delay in the Work.

15.3.2 Unless otherwise provided in the Agreement Documents:

15.3.2.1 These Allowances must cover the cost to Contractor, less any applicable trade discount, of the materials, labor, and equipment required by the Allowances, delivered at the Site, and all applicable taxes;

15.3.2.2 Contractor's costs for unloading and handling on the Site, labor, installation costs, overhead, profit and other expenses relating to materials, labor, and equipment required by the Allowance must be included in the Agreement Sum and not in the Allowance; and

15.3.2.3 Whenever the cost is more or less than the Allowance, the Agreement Sum must be adjusted accordingly by Change Order, the amount of which will recognize the difference between actual costs for an Allowance item and the amount of the Allowance item and changes, if any, in handling costs on the Site, labor, installation costs, overhead, profit and other expenses.

15.4 **CONTINGENCY**

An agreed to amount in the GMP that may only be used in accordance with the terms set forth in these General Conditions and with prior written approval by the City.

15.4.1 Construction Contingency. This GMP includes a dollar amount listed as a Construction Contingency which will be readily available for increased costs for subcontractors, material, and equipment subject to prior approval of City, which approval will not be withheld unreasonably. The Construction Contingency may also be used, at the discretion of City, to reimburse CM@Risk for unexpected costs due to (a) scope gaps between trade subcontractors; (b) agreement default by trade subcontractors; (c) unforeseen field conditions, but only as defined in Section 9.5 above; (d) work completed to meet the intent of the design, but which was not indicated on the plans; (e) costs overruns not covered by allowances; (f) costs of corrective work not provided for elsewhere; and (g) implementation of any Recovery Plan. Cost for which CM@Risk desires to be paid from the Construction Contingency must be documented by CM@Risk on a time and materials basis and are subject to verification by City. If agreed to by City, a "Use of Contingency" form will be executed by both parties authorizing the actual cost of the work to be paid and included in the Work Item Direct Costs. The Construction Contingency is not allocated to any particular item of the Project but may be used for any portion of the work as determined above. Any amount not used in the Construction Contingency will belong to City and will reduce the GMP.

15.4.2 Owner's Contingency. This GMP also includes a dollar amount listed as an Owner's Contingency which may be used only by the City (owner department) for upgrades and changes in scope or other changes not already included within the intent of the Project Program. City will provide CM@Risk with a Work Change Directive authorizing CM@Risk to perform the additional work and to transfer funds from the Owner's Contingency to the Work Item Direct Costs category to be paid with such direct costs. These additional costs will be in an amount mutually agreed upon by CM@Risk and City or will be documented by CM@Risk on a time and materials basis and are subject to verification by City. Any amount not used in the Owner's Contingency will belong to the City and will reduce the GMP.

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15.5 **REDUCTION IN RETENTION**

If the Agreement Price is based upon a GMP, in order to receive payment of one-half of the retention as set forth in Section 8.1.5 above, Contractor must also submit to the Project Manager a complete accounting of the Actual Reimbursable Cost of the Work to date, including all such documentation (including, without limitation, invoices, subcontract, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the actual reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. The Project Manager's determinations as to Actual Reimbursable Cost of the Work will be the basis of payment until final Project Closeout and Final Payment under the Agreement.

15.6 **FINAL PAYMENT**

If the Agreement Price is based upon a GMP, as a further condition precedent to Final Payment by City, Contractor must submit to the Project Manager a complete final accounting of the Actual Reimbursable Cost of the Work, including all such documentation (including, without limitation, invoices, subcontracts, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the Actual Reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. Disputes relating to the Final Cost of the Work will be subject to City's audit rights under Sections 8.8 above and 15.7 below, and the dispute resolution process under Section 13 above.

15.7 **OPEN BOOK**

On any GMP-based or Cost-Based Agreement, Job Order, or Change Order, City may attend any and all meetings or discussions pertaining to the Project, including bid openings, and must have access to all books, invoices, accounts, memoranda, correspondence, and written communications or records of any kind pertaining to the Project, including without limitation, those stored in electronic format.

15.8 **DIFFERING SITE CONDITIONS AND/OR CHANGE IN LAWS**

A Change Order for increased costs under Section 9.5 or 9.6 above will only be considered or granted by City to the extent such actual, documented costs are justified.

SECTION 16 - PROVISIONS APPLICABLE SOLELY TO JOB ORDER AGREEMENTS (JOC)

16.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Sections 2 and below will apply to all Job Order Agreements and Job Orders. In addition, the definitions set forth in Section 15.1 above will apply to all Cost-Based Job Orders.

Agreement –
Includes the Job Order Master Agreement and Job Order Project Agreements issued and agreed to by City and JOC Contractor.

JOC Contractor's Coefficient –
A numerical factor that represents JOC Contractor total costs (indirect and direct costs, sales tax,

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profit, etc.) and other adjustments for market conditions.

Job Order Request for Proposal (RFP) –
The Request for Proposals issued by City for each Job Order Project Agreement relating to a specific Project.

Job Order Cost Proposal –
The Proposal submitted by JOC Contractor in response to a Job Order Request for Proposal (RFP) issued by City to develop a Job Order Project Agreement for a specific Project.

Guaranteed Maximum Price (GMP) Job Order –
Job Order under which JOC Contractor is compensated for actual costs incurred.

Job Order Project Agreement (Job Order) –
The agreement for a specific project, as it may be modified by all Change Orders, executed by the Parties, which incorporates the terms and conditions of the Job Order Master Agreement.

16.2 **ORDERING AND PROCESSING PROCEDURES FOR JOB ORDERS**

16.2.1 The process for developing and issuing a Job Order for a particular Project consists of three (3) procedures: (1) issuance of a RFP by City; (2) JOC Contractor's response to the RFP in the form of JOC Contractor's Job Order Cost Proposal; and (3) Issuance of a Job Order by City, as set for below.

16.2.2 RFP's For Job Orders

16.2.2.1 City will provide to JOC Contractor RFP with a Scope of Work (SOW) describing the Work to be performed, which may include special instructions and conditions, material submittal requirements, and, if applicable, a complete set of sketches, construction drawings and specifications for the Job Order.

16.2.2.2 Some Job Order RFP's will be issued by City without detailed sketches, drawing and specifications and will rely on JOC Contractor to produce them for City review and approval and is considered to be Pre-Construction and incidental design services included in JOC Contractor's overhead for GMP Job Orders. In addition JOC Contractor will not be reimbursed for any Pre-Job Order costs, including proposal preparation, attendance during negotiations, or site visits.

16.2.3 JOC Contractor's Job Order Cost Proposal

16.2.3.1 JOC Contractor must respond within ten (10) calendar days of the RFP date or site visit, whichever is later or as otherwise indicated on a case-by-case basis, by submitting JOC Contractor's Job Order Cost Proposal to the City representative.

16.2.3.2 Unless otherwise required under the terms of the RFP, JOC Contractor's Job Order Cost Proposal must include the following.

a. JOC Contractor's Job Order Cost Proposal in PDF and electronic format;

b. A Project Schedule and schedule of values that reflects the costs of each work element on the schedule. The schedule must show all milestones (e.g., permits, submittals, ordering materials, demolition, work phases, closeout and completion date); and

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c. Necessary documentation will be required to indicate that adequate scoping, layout, setup and planning to accomplish the Work has been done. Examples of documentation that might reasonably be expected include sketches, drawings, calculations, catalog cuts and specifications produced to a level of detail and skill that could be expected of experienced, competent Project Managers with five or more periods experience in their respective trade.

16.2.3.3 JOC Contractor must select Subcontractors based on qualifications alone or on a combination of qualifications and price and must not select Subcontractors based on price alone. A qualifications and price selection may be a one-step selection based on a combination of qualifications and price or two-step selection. In a two-step selection, the first step must be based on qualifications alone and the second step may be based or a combination of qualifications and price or on price alone.

16.2.3.4 Upon request, JOC Contractor must provide City with copies of Subcontractor quotes and the basis for selection of each Subcontractor.

16.2.3.5 If City objects to a selected Subcontractor, City will make the objection and the reasons for the objection known to the JOC Contractor. JOC Contractor must then present an acceptable Subcontractor for the applicable discipline. City will not unreasonably object to or withhold approval of a Subcontractor.

16.2.3.6 For self-performed work, the City retains the right to have the JOC Contractor establish JOC Contractor's costs by bidding their costs against at least three (3) other interested trade Contractors. No self- performed work will be allowed to be performed on a lump sum basis.

16.2.4 Issuance of Job Order

16.2.4.1 City Representative will compare the JOC Contractor's Job Order Cost Proposal with the City's estimate, schedules and other requirements, and then, if the City Representative determines it is in the best interest of City, arrange a meeting with JOC Contractor, at which time the JOC Contractor's Job Order Cost Proposal will be discussed and negotiated.

16.2.4.2 If the City Representative determines that it is in the best interest of the City, City will then issue a Job Order to JOC Contractor for execution.

16.2.4.3 Specific Job Orders may vary, but unless agreed to by City in writing otherwise, the content of Job Orders under the Agreement will generally be as follow, all of which will be signed and/or initialed by JOC Contractor's designated representative:

a. The description of the Scope of the Work and Project Schedule (attached as Exhibit A to the Job Order);

b. The address or location of the Work;

c. The Agreement Price for Work (Construction) included in the Project (attached as Exhibit B to the Job Order);

d. The name of the JOC Contractor representative for the Project;

e. The Drawings and Specifications for the Project;

f. If any shop drawings, project date and/or samples are required for the Job Order, the date for delivery of each required item (included in the Project

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Schedule, Exhibit A to the Job order); and

g. Project Specific Provisions, if any, in Exhibit A to the Job Order, including, without limitation, whether any of the following are required: Pre-Construction Conference, weekly progress meetings, field office, storage enclosure, materials and equipment handling facility, submittals, shop drawings, product data, equipment list, samples, project manual, schedule of values, Construction progress schedule, narrative reports, progress report, progress charts, progress photographs, materials status report, Construction diagram, Construction status report, operation and maintenance data, operating maintenance instructions and parts list, and as-build drawings.

16.2.5 Job Order Intent. Each Job Order will be interpreted to include all items reasonably necessary to complete the Project under that Job Order as described in the scope of the Work in that Job Order. All Work must be performed in a professional manner and all materials used must be new and of the highest quality and of the type best adapted to their purpose, unless otherwise specified. The Notice to Proceed date, and the award date established therein, will be deemed an integral part of the Job Order the same as if set forth therein.

16.3 **INCIDENTAL DESIGN SERVICES**

16.3.1 This effort includes all "extensions of design" for systems that are typically specified in a performance oriented manner by consultants and designers. Examples include: fire sprinkler systems, fire alarm and sprinkler systems, DDC controls, control systems, prefabricated metal building and similar situations. These designs are normally provided under submittals as a shop drawing with engineering backup and as appropriate, seals of registered engineers specializing in the particular system.

16.3.2 Incidental design includes all documents, sketches, schematic diagrams, floor plan layouts, equipment schedules and other documents produced by the JOC Contractor to define the work required for projects that the City does not develop formal or abbreviated designs requiring a seal by a registered engineer. Incidental design does not include preparation of designs requiring an architect or engineer seal.

16.3.3 JOC Contractor represents, covenants, and agrees, and contractually assumes the obligation to furnish, all of the required Design Services through properly licensed and experienced Design Professionals in complete accordance with all of the duties imposed on a Design Professional under the Agreement Documents, Laws, Regulations, or Legal Requirements, and the common law.

16.3.4 All Design Documents (and all other Project-related documents, models, computer drawings and other electronic expression, photographs and other expressions CADD, and BIM files and images included) that JOC Contractor and/or JOC Contractor's Design Professional(s) prepare in connection with a Job Order and the copyrights therein (collectively, the "Instruments of Service") will be the property of City. JOC Contractor covenants and agrees to execute any additional document reasonably requested by City to confirm such assignment without any additional compensation.

16.4 **CONSTRUCTION SERVICES**

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16.4.1 The following subsections of this Section 16.4 set forth requirements beyond those set forth in Section 4 above which apply to Construction Services performed under a Job Order.

16.4.2 JOC Contractor must perform the Work using only those firms, team members and individuals designated by JOC Contractor consistent with each Job Order or otherwise approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

16.4.3 Construction Phasing

16.4.3.1 City use of the facilities is anticipated while the Work is being performed. The Work must be planned and accomplished so that there will be a minimum of interference and inconvenience to occupants in the building and agencies in the vicinity and to other craftsmen who may have to do work in the affected facilities. Any blockage of building exits or driveways must be coordinated in advance.

16.4.3.2 If applicable, furniture, portable office equipment and wall appurtenances not rigidly fastened to the walls must be moved by JOC Contractor, protected from damage and replaced to the original position upon completion of the work. If the work required by the Job Order will not allow furniture and portable office equipment to be replaced to its original position, new locations will be designated by City. Incidental costs associated with moving one-piece furnishings up to approximately 150 pounds to perform such tasks as painting, carpet or tile replacement, etc., are considered a general cost of building renovation and must be included in the JOC Contractor's Coefficient. Costs for large scale or wholesale removal and replacement of large quantities of desks or modular workstations, copiers, multiple full file cabinets, etc. to another location or storage outside the work space, or disassembly and reassembly of modular furniture is not considered part of the JOC Contractor's Coefficient and will be priced separately.

16.4.3.3 The work must, so far as practicable, be done in definite sections or divisions and confined to limited areas which must be completed before work in other sections or divisions are begun.

16.4.4 Work Site Conflicts. In the event of a conflict between JOC Contractor and others in an occupied facility or where other Contractors are performing work on the same facility under other Agreements, City will decide to dispute and that decision will be final.

16.4.5 Ownership of Work Product. Work Product prepared or otherwise created in connection with the performance of this Agreement, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. §101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, JOC Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

16.5 **OPTIONAL LIQUIDATED DAMAGES**

16.5.1 Specific Job Orders. City will have the right to assess liquidated damages in relation to any specific JOC Project Agreement as set forth below.

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16.5.2 Substantial Completion Liquidated Damages. JOC Contractor acknowledges and agrees that if JOC Contractor fails to obtain Substantial Completion of the Work within the Agreement Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and JOC Contractor agree that if JOC Contractor fails to achieve Substantial Completion of the Work within the Agreement Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

16.5.3 Final Acceptance Liquidated Damages. For the same reasons set forth in Section 16.5.2 above, City and JOC Contractor further agree that if JOC Contractor fails to achieve Final Acceptance of the Work within the Agreement Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under any specific JOC Project Agreement.

16.5.4 MAG Liquidated Damages. Liquidated damages provisions in MAG § 108.9 may apply to any specific JOC Project Agreement.

16.5.5 City may deduct liquidated damages assessed pursuant to this Section 16.5 from any unpaid amounts then or thereafter due JOC Contractor under the Agreement or any specific JOC Project Agreement between JOC Contractor and City. Any liquidated damages not so deducted from any unpaid amounts due JOC Contractor must be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable to JOC Contractor.

16.6 **PERFORMANCE MEASUREMENT**

16.6.1 Performance Assessment. After the Final Acceptance of Work under each Job Order, City will complete a written evaluation of the performance of JOC Contractor on the Job Order.

16.6.2 Consideration in Assignment of Work. JOC Contractor's record of cost, schedule and quality performance and comparative assessments will be significant considerations in City's determination whether to award future Job Orders. JOC Contractor agrees that any determination by City not to not award future Job Orders or Option periods based on performance will be at the sole discretion of City.

SECTION 17 - PROVISIONS APPLICABLE SOLELY TO PRE-CONSTRUCTION SERVICES FOR CONSTRUCTION MANAGER AT RISK

17.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Section 2 and 15.1 above will apply to all Pre-Construction Services Agreements.

17.2 **GENERAL**

17.2.1 CM@Risk must perform the Services required by, and in accordance with the Agreement Documents and as outlined in Exhibit A of the Agreement to the satisfaction of the Project Manager, exercising the degree of care, skill, diligence and judgment a professional construction manager experienced in the performance of such services for construction and/or facilities of similar scope, function, size, quality, complexity and detail to the Project in urban areas throughout the United States, would exercise at such time, under

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similar conditions. CM@Risk must, at all times, perform the required services consistent with sound and generally accepted engineering principles and construction management and construction contracting practices.

17.2.2 As a participating member of the Project Team, CM@Risk must provide to City and Design Professional a written evaluation of City's Project Program and budget, each in terms of the other, with recommendations as to the appropriateness of each. CM@Risk must prepare a Baseline Cost Model that validates City's budget. The Baseline Cost Model must include all assumptions and basis of estimates in enough detail so that the Project Team can compare future detail estimates to the Baseline Cost model for variances. City and Design Professional will provide all the reasonably required data that is available in order to reach agreement between the team members that the Baseline Cost Model is an accurate projection of the costs of the Project.

17.2.3 CM@Risk must attend Project Team meetings, which may include, but are not limited to, bi- weekly Project management meetings, Project workshops, special Project meetings, construction document rolling reviews, public meetings and partnering sessions. CM@Risk attendance at design or other meetings in which CM@Risk is provided the opportunity but does not actively participate and/or is not properly prepared is not acceptable. Repeated instances of non-participation and/or lack of preparedness will be grounds for termination of CM@Risk Agreement for default.

17.2.4 CM@Risk must provide Pre-Construction Services, described herein, in a timely manner and consistent with the intent of the most current Drawings and Specifications. CM@Risk must promptly notify City in writing whenever CM@Risk determines any Drawings or Specifications are inappropriate for the Project and/or cause changes in the scope of Work that deviates more than the allowed contingencies within the Baseline Cost Model or requires an adjustment in the Baseline Cost Model, Detailed Cost Estimate, Detailed Project Schedule, GMP Proposals and/or in the Agreement Time for the Work, to the extent such as established.

17.2.5 CM@Risk when requested by City, must attend, make presentations and participate as may be appropriate in public agency and or community meetings, relevant to the Project. CM@Risk must provide drawings, schedule diagrams, budget charges and other materials describing the Project when their use is required or appropriate in any such public agency meetings.

17.2.6 Ownership of Work Product. All Work Product prepared or otherwise created in connection with the performance of this Agreement, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or material, in whatever form created (e.g., electronic or printed) and in all media now know or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C.
§101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

17.2.7 CM@Risk represents to City in completing Pre-Construction Services and providing the reports and analysis required thereunder, that Work can be properly and timely constructed within the GMP Proposal, if accepted. CM@Risk does not assume any design

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responsibilities unless specifically called for in the scope of work, but CM@Risk will be responsible for their errors, omissions or inconsistencies included in the Work.

17.3 **DETAILED PROJECT SCHEDULE**

17.3.1 The fundamental purpose of the Detailed Project Schedule is to identify, coordinate and record the tasks and activities to be performed by all of the Project Team members and then for the Project Team to utilize that Deliverable as a basis for managing and monitoring all member's compliance with the schedule requirements of the Project. Each Project Team member is responsible for its compliance with the Detailed Project Schedule requirements. CM@Risk must, however, develop and maintain the Detailed Project Schedule on behalf of and to be used by the Project Team based on input from the other Project Team members. The Baseline Project Schedule must be developed as part of the Baseline Cost Model. The Detailed Project Schedule must use the Critical Path method ("CPM") technique, unless required otherwise, in writing by City. CM@Risk must use scheduling software acceptable to City to develop the Detailed Project Schedule. The Detailed Project Schedule must be presented in graphical and tabular reports as agreed upon by the Project Team. If Project phasing as described below is required, the Detailed Project Schedule must indicate milestone dates for the phases once determined. As part of construction phase, City may require CM@Risk to prepare a "resource loaded" schedule for all work, including work performed by Subcontractors, detailing each of the project tasks and the required/anticipated number of personnel per day for each task. CM@Risk must also indicate on the schedule its ability to meet said required/anticipated personnel requirements.

17.3.2 CM@Risk must include and integrate in the Detailed Project Schedule the services and activities required of City, Design Professional and CM@Risk including all construction phase activities based on the input received from City and the Design Professional. The Detailed Project Schedule must define activities as determined by City to the extent required to show: (a) the coordination between preliminary design and various pre-construction documents, (b) any separate long-lead procurements, (c) any permitting issues, (d) any land, right-of-way, or easement acquisition, (e) bid packaging strategy and awards to Subcontractors and Suppliers, (f) major stages of construction, (g) start-up and commissioning, and (h) occupancy of the completed Work by City. The Detailed Project Schedule must include by example and not limitation, proposed activity sequences and durations for design, procurement, construction and testing activities, milestone dates for actions and decisions by the Project Team, preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead time procurement (if any), milestone dates for various construction phases, Total Float for all activities to the extent authorized by City, relationships between the activities, City's occupancy requirements showing portions of the Project having occupancy priority, and proposed dates for Final Acceptance.

17.3.3 A Baseline Project Schedule must be initiated with the project Baseline Cost Model and agreed to by the project team at the same time. CM@Risk must update and maintain a detailed Project Schedule throughout pre-construction such that it will not require major changes at the start of the construction phase to incorporate CM@Risk's plan for the performance of the construction phase Work. CM@Risk must provide updates and/or revisions to the Detailed Project Schedule for use by the Project Team, whenever required, but no less often than at the Project Team meetings. CM@Risk must include with such submittals a narrative describing its analysis of the progress achieved to-date vs. the

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Baseline Project Schedule, including any concerns regarding delays or potential delays, and any recommendations regarding mitigating actions.

17.3.4 If phased construction is deemed appropriate at the time of developing the Baseline Cost Model or during the development of the Detailed Project Schedule, and City approves, CM@Risk must review the design and make recommendations regarding the phased issuance of Construction Documents to facilitate phased construction of the Work, with the objective of reducing the Project Schedule and/or Cost of the Work. CM@Risk must take into consideration such factors as natural and practical lines of work severability, sequencing effectiveness, access and availability constraints, total time for completion, construction market conditions, labor and materials availability, and any other factors pertinent to saving time and cost.

17.3.5 Long Lead Time Items. As part of developing the Detailed Project Schedule, CM@Risk must identify all long lead time materials, fabrications, equipment, or other items which may impact the Project Schedule and may require early action on the part of the Project Team. Dates for selecting and ordering long lead time items will be included and highlighted in the Detailed Project Schedule

17.3.6 Equipment Plan. Contractor must develop an Equipment Plan that addresses all rental and owned equipment, regardless of whether such equipment will be provided by CM@Risk or subcontractor(s), that will be necessary to construct the Project and the cost of which will be included as a Cost of the Work in the GMP Proposal. The Equipment Plan will seek to minimize the cost of the equipment to City and maximize the efficient and coordinated use of the equipment for completion of the Project. The Equipment Plan will not only include the costs and allowable lease rates for the equipment, but will also include an equipment schedule that will be incorporated into the Detailed Project Schedule and the Schedule of Values submitted with the GMP Proposal.

17.4 DESIGN DOCUMENT REVIEWS

17.4.1 CM@Risk must evaluate periodically the availability of labor, materials/equipment, cost-sensitive aspects of the design; and other factors that may create an unacceptable variance to the Baseline Cost Model and/or Baseline Project Schedule.

17.4.2 CM@Risk must recommend, in conjunction with the Project Team, those additional surface and subsurface investigations that, in its professional opinion, are required to provide the necessary information for CM@Risk to construct the Project. These additional investigations, if agreed to be necessary by the Project Manager and the Design Professional, will be acquired by City and copies of the reports will be provided to CM@Risk.

17.4.3 CM@Risk must meet with the Project Team as required to review designs during their development. CM@Risk must familiarize itself with the evolving documents through pre- construction. CM@Risk must proactively advise the Project Team and make recommendations on factors related to construction costs, and concerns pertaining to the feasibility and practicality of any proposed means and methods, selected materials, equipment and building systems, and, labor and material availability. CM@Risk must furthermore advise the Project Team on proposed site improvements, excavation and foundation considerations, as well as, concerns that exist with respect to coordination of the Drawings and Specifications. CM@Risk must use established value analysis principles in recommending cost effective alternatives.

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17.4.4 CM@Risk must routinely conduct constructability and bid-ability reviews of the Drawings and Specifications as necessary to satisfy the needs of the Project Team. The reviews must attempt to identify all discrepancies and inconsistencies in the Construction Documents especially those related to clarity, consistency, completeness and coordination of Work of Subcontractors and Suppliers.

17.4.4.1 CM@Risk must evaluate whether: (a) the Drawings and Specifications are configured to enable efficient construction; (b) design elements are standardized; (c) construction efficiency is properly considered in the Drawings and Specifications; (d) module/preassembly design is prepared to facilitate fabrication, transport and installation; (e) sequences of Work required by or inferable from the Drawings and Specifications are practicable; (f) the design has taken into consideration efficiency issues concerning access and entrance to the site, laydown and storage of materials, staging of site facilities, construction parking, and other similar pertinent issues; and (g) the design maintains continued operation of the existing City systems and maintains traffic on adjacent roadways. CM@Risk must also review the Drawings and Specifications to ensure that what is depicted therein can be constructed as designed and must promptly inform the Project Team of any issues.

17.4.4.2 CM@Risk must check cross-reference and complementary Drawings and sections within the Specifications and in general evaluate whether: (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope interpretation discrepancies; (b) named materials and equipment are commercially available and are performing well, or otherwise, in similar installations; (c) Specifications include alternatives in the event a requirement cannot be met in the field; and (d) in its professional opinion, the Project is likely to be subject to Differing Site Conditions.

17.4.4.3 The results of the reviews must be provided to Project Team in formal, written reports clearly identifying all reviewed documents and the discovered discrepancies and inconsistencies in the Drawings and Specifications with notations and recommendations made on the Drawings, Specifications and other documents. CM@Risk must meet with Project Team to discuss any findings and review reports.

17.4.4.4 CM@Risk's reviews must be from a Contractor's perspective, and though it will serve to eliminate/reduce the number of RFIs) and changes during the construction phase, responsibility for the Drawings and Specifications will remain with the Design Professional and not CM@Risk.

17.4.5 It is CM@Risk's responsibility to assist the Design Professional in ascertaining that, in CM@Risk's professional opinion, the Construction Documents are in accordance with applicable Laws, Regulations, or Legal Requirements, building codes, sound engineering principle's rules and regulations. If CM@Risk recognizes that portions of the Construction Documents are at variance with applicable laws, statutes, ordinances, building codes, sound engineering principle's rules and regulations, it must promptly notify the Project Team in writing, describing the apparent variance of deficiency. However, the Design Professional is ultimately responsible for the compliance of the Drawings and Specifications with those laws, statutes, ordinances, building codes, rules and regulations.

17.4.6 The Project Team will routinely identify and evaluate using value analysis principles and alternate systems, approaches, design changes that have the potential to reduce Project costs while still delivering a high quality and fully functional Project consistent with

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the Project Program. If the Project Team agrees, CM@Risk in cooperation with the Design Professional, will perform a cost/benefit analysis of the alternatives and submit such in writing to the Project Team. City, through the Project Manager, will direct which alternatives will be incorporated into the Project. The Design Professional will have full design responsibility for the review and incorporation of CM@Risk suggested alternatives into the Drawings and Specifications. CM@Risk must analyze the costs and schedule impacts of the alternatives against the Baseline Cost Model and Schedule and provide a recommendation for the Project Team's consideration and City's approval prior to the establishment of the GMP.

17.5 **BASELINE COSTS MODEL, DETAILED COST ESTIMATES, AND SCHEDULE OF VALUES**

17.5.1 At the conclusion of the Master Planning and Programming, if required, CM@Risk will review all available information regarding the design and scope of the Project using CM@Risk's experience in performing similar work, knowledge of similar projects and current and projected construction costs and, based upon that review, must develop a Baseline Cost Model for review by the Project Team and approval by City. Once approved by City, the Baseline Cost Model will be continually referenced as detailed estimates are created as the design progresses throughout Pre-Construction until the final GMP for the entire Project is established. A final GMP for the entire Project must be established and approved by City prior to the start of construction. It is the responsibility of CM@Risk to ensure City has sufficient information to evaluate and approve a final GMP prior to the time necessary to start construction so construction can be completed within the Agreement Time. The Project Detailed Cost Estimate will be the best representation from CM@Risk of what the complete functional Project's construction costs will be as indicated by the most current available documents and will be constantly checked against the Baseline Cost Model. CM@Risk must communicate to the Project Team and assumptions made in preparing the Baseline Cost Model. The Baseline Cost Model must support CM@Risk's Detailed Cost Estimates and may be broken down initially as dictated by the available information, as required by City.

17.5.2 After receipt of the Design Professional's most current documents from certain specified pre- construction milestones, CM@Risk must provide a draft Detailed Cost Estimate including a detailed written report detailing any variances to the Baseline Cost Model and Baseline Project Schedule. The Design Professional and CM@Risk will reconcile any disagreements on the estimate to arrive at an agreed upon Detailed Cost Estimate for the construction costs based on the scope of the Project through that specified pre-construction milestone. Pre-Construction milestones applicable to this paragraph are: Master Planning and Programming, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Drawings, If no consensus is reached, City will make the final determination. If the Project Team requires additional updates of the Detailed Cost Estimate beyond that specified in this paragraph, CM@Risk must provide the requested information in a timely manner.

17.5.3 If at any point the Detailed Cost Estimate submitted to City exceeds the previously accepted Baseline Cost Model or previously approved Detailed Cost Estimate agreed to as set forth in Section 17.5.2 above, CM@Risk must make appropriate recommendations to project Team on means/methods, materials, and or other design elements that it believes will reduce the estimated construction costs, such that it is equal to or less than the established Project Team's Baseline Cost Model.

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17.5.4 Unless other levels of completion are agreed to in writing in the Construction Documents, at 50% Construction Drawings and included with the associated report, CM@Risk must also submit to the Project Team for review and approval a Schedule of Values that complies with the following requirements. The Schedule of Values must be based on City standard bid schedule and highlight significant variances from any previously submitted Schedule of Values. The Schedule of Values must be directly related to the breakdowns reflected in the Detailed Project Schedule and CM@Risk's Detailed Cost Estimate. In addition, the Schedule of Values must: (a) detail unit prices and quantity take-offs, (b) detail all other contingencies and unit price Work shown and specified in the detailed design documents.

17.5.5 CM@Risk is to track, estimate/price and address the Project Team's overall project cost issues that arise outside of the Baseline Cost Model and the latest approved Detailed Cost Estimate such as: City generated changes, Project Team proposed changes, alternate system analysis, constructability items and value engineering analysis. The system used to implement this process will be referred to as the Design Evolution Log. This is to be addressed between the Baseline Cost Model and the Master Planning and Programming Detailed Cost Estimate, and then (unless other levels of completion are agreed to in writing in the Construction Documents) between the Detailed Cost Estimates for each of the pre-construction milestones thereafter, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Documents, and the bid packages for all Phases.

17.5.6 Upon request by City, CM@Risk must submit to City a cash flow projection for the Project based on the current updated/revised Detailed Project Schedule and the anticipated level of payments for CM@Risk during the design and construction phases. In addition, if requested by City and based on information provided by City, CM@Risk must prepare a cash flow projection for the entire Project based on historical records for similar types of projects to assist City in the financing process.

17.5.7 Construction Water. CM@Risk must estimate the quantity of water to be used and include the cost thereof in each Detailed Cost Estimate and GMP Proposal provided by City.

17.6 **SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS**

17.6.1 There are two ways to select Subcontractors and major Suppliers prior to submission of a GMP Proposal: (1) qualifications-based selection; or (2) a combination of qualifications and price. Except as noted below, the selection of Subcontractors/Suppliers is the sole responsibility of CM@Risk. In any case, CM@Risk is solely responsible for the performance of the selected Subcontractors/Suppliers, and for compliance with the requirements of Title 34 of the Arizona Revised Statutes in the selection of a Subcontractors/Suppliers, to the extent applicable. CM@Risk must comply with its Subcontractor Selection Plan submitted with its Statement of Qualifications.

17.6.2 City may approve the selection of a Subcontractor(s) or Suppliers(s) based only on their qualifications when CM@Risk can demonstrate it is in the best interest of the Project. All Work that is performed, after such a qualifications-based selection, for a price that is negotiated by CM@Risk will be billed in accordance with the GMP for actual costs and may be subject to audit by City.

17.6.2.1 Qualifications based selection of a Subcontractor(s)/Supplier(s) should only occur prior to the submittal of the GMP Proposal.

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17.6.2.2 If a Subcontractor/Supplier selection plan was submitted and agreed to by City, CM@Risk must apply the plan in the evaluation of the qualifications of a Subcontractor(s) or Supplier(s) and provide City with its review and recommendations.

17.6.2.3 CM@Risk must receive written City approval for each selected Subcontractor(s) and Supplier(s).

17.6.2.4 CM@Risk must negotiate costs for services/supplies from each Subcontractor/Supplier selected under this method.

17.6.3 All Work must be competitively bid unless a Subcontractor or Supplier was selected pursuant to Section 17.6.2 above.

17.6.3.1 CM@Risk must develop Subcontractor and Supplier interest, submit the names of a minimum of three qualified Subcontractors or Suppliers for each trade in the Project for approval by City and solicit bids for the various Work categories. If there are not three qualified Subcontractors/Suppliers available for a specific trade or there are extenuating circumstances warranting such, CM@Risk may request approval by City to submit less than three names. Without prior written notice to City, no change in the recommended Subcontractors/Supplies will be allowed.

17.6.3.2 If City objects to any nominated Subcontractor/Supplier or to any self-performed Work for good reason, CM@Risk must nominate a substitute Subcontractor/Supplier that is acceptable to City.

17.6.3.3 CM@Risk must distribute Drawings and Specifications, and when appropriate, conduct a Pre- Bid Conference with prospective Subcontractors and Suppliers.

17.6.3.4 If CM@Risk desires to self-perform certain portions of the Work, it must request to be one of the approved Subcontractor bidders for those specific bid packages. CM@Risk's bid will be evaluated in accordance with the process identified below. If events warrant and City concurs that it is necessary in order to ensure compliance with the Project Schedule and/or the most recent Detailed Cost Estimate, CM@Risk may be authorized to self-perform Work without bidding or rebidding the Work. When CM@Risk self-performs work without bidding, only the actual costs associated with performing the Work in accordance with the approved GMP will be billed and may be subject to audit by City.

17.6.3.5 CM@Risk must receive, open, record and evaluate the bids; provided, however, that if CM@Risk or one of its affiliates is bidding to self-perform the Work that is the subject of the bid, then the bids must be received, opened, recorded and evaluated by Project Manager instead of CM@Risk. Bids for each category of Work must be opened and recorded at a pre-determined time. The apparent low bidders must be interviewed to determine the responsiveness of their proposals. In evaluating the responsiveness of bid proposals CM@Risk, in addition to bid price, may consider the following factors: past performance on similar projects, qualifications and experience of personnel assigned, quality management plan, approach or understanding of the Work to be performed, and performance schedule to complete the Work. The final evaluation of Subcontractor/Supplier bids must be done with Project Manager in attendance to observe and witness the process. CM@Risk must resolve any Subcontractor/Supplier bid withdrawal, protest or disqualification in connection with the award at no increase in the Cost of Work.

17.6.4 CM@Risk will be required to prepare two different reports on the subcontracting process.

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17.6.4.1 Within fifteen days after each major Subcontractor/Supplier bid opening process; CM@Risk must prepare a report for City's review and approval identifying the recommended Subcontractors/Supplier for each category of Work. The report must detail: (a) the name of the recommended Subcontractor/Supplier and the amount of the Subcontractor/Supplier bid for each sub-agreement; (b) the sum of all recommended Subcontractor/Supplier bids received; (c) and trade work and its cost that CM@Risk intends to self-perform, if any.

17.6.4.2 Upon completion of the Subcontractor/Supplier bidding process, CM@Risk must submit a summary report to City of the entire Subcontractor/Supplier selection process. The report must indicate, by bid process, all Subcontractors/Suppliers contacted to determine interest, the Subcontractors/Suppliers solicited, the bids received and costs negotiated, and the recommended Subcontractors/Suppliers for each category of Work.

17.6.5 The approved Subcontractors/Suppliers will provide a Schedule of Values with their bid proposals, which will be used to create the overall Project Schedule of Values.

17.6.6 If after receipt of sub-bids or after award to Subcontractors and Suppliers, City objects to any nominated Subcontractor/Supplier or to any self-performed Work without any reasonable basis, CM@Risk must nominate a substitute Subcontractor or Supplier, preferably if such option is still available, from those who submitted Subcontractor bids for the Work affected. Once such substitute Subcontractors and Suppliers are consented to by City, CM@Risk's proposed GMP for the Work or portion thereof must be correspondingly adjusted to reflect any higher or lower costs form any such substitution.

17.7 **GMP PROPOSAL**

17.7.1 When a GMP Proposal is submitted for a phase of the Work, the GMP will have a Detailed Cost Estimate of the Costs of the Work (as set forth in Section 15.2) in each phase of the Work that is being proposed plus the current estimate for all other Work. City will not approve the GMP for the phase of work without a total estimate for the complete Project. City may request a GMP Proposal for all or any portion of the Project and at any time during pre-construction. Any GMP Proposals submitted by CM@Risk must be based on and consistent with Baseline Cost Model and the current update/revised Detailed Cost Estimate at the time of the request and include any clarifications or assumptions upon which the GMP Proposal(s) are based.

17.7.2 A GMP Proposal for the entire Project will be the sum of the Cost of the Work, CM@Risk Fee, and General Conditions Cost. CM@Risk guarantees to complete the Project at or less than the final GMP Proposal amount plus approved Change Orders. CM@Risk will be responsible for any costs for expenses that would cause the Cost of the Work actually incurred, including the Construction Fee and General Conditions Costs, to exceed the GMP.

17.7.3 CM@Risk must prepare its GMP Proposal in accordance with City's request for GMP Proposal requirements based on the most current completed Drawings and Specifications at that time, which unless otherwise directed by City in writing, will be at 100% Construction Drawings. CM@Risk must mark the face of each document of each set upon which its GMP Proposal is based. These documents must be identified as the GMP Plans and Specifications. CM@Risk must send one set of those documents to the Project Manager, keep one set and return the third set to the Design Professional.

17.7.4 An updated/revised Detailed Project Schedule, Equipment Plan, and Schedule of Values

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must be included in any GMP Proposal(s), all of which must reflect the GMP Plans and Specifications the Detailed Project Schedule must be shown in relationship to the Project Schedule and identify any variance to the Baseline Project Schedule. Any such Detailed Project Schedule updates/revisions must continue to comply with the requirements of Section 17.3.1 through 17.3.5.

17.7.5 GMP Proposals(s) Review and Approval

17.7.5.1 CM@Risk must meet with the Project Team to review the GMP Proposal(s) and the written statement of its basis. In the event the Project Team discovers inconsistencies or inaccuracies in the information presented, CM@Risk must make adjustments as necessary to the GMP Proposal.

17.7.5.2 If during the review and negotiation of GMP Proposals design changes are required, City may authorize and cause the Design Professional to revise the GMP Plans and Specifications to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the final approved GMP Proposal. Such revised GMP Plans and Specification will be furnished to CM@Risk. CM@Risk must promptly notify the Project Team in writing if any such revised GMP Plans and Specifications are inconsistent with the agreed upon assumptions and clarifications.

17.7.6 All portions of or items comprising the GMP Proposal are subject to audit by City, as deemed appropriate by City, including, without limitation, any based upon unit prices or Work to be self- performed by CM@Risk, or its affiliates.

17.8 **PAYMENT PROCEDURE FOR PRE-CONSTRUCTION SERVICES**

17.8.1 Requests for monthly payments by CM@Risk for Pre-Construction Services must be submitted monthly and must be accompanied by a progress report, detailed invoices and receipts, if applicable. Any requests for payment must include, as a minimum, a narrative description of the tasks accomplished during the billing period, a listing of any Deliverables submitted, and copies of any Subconsultants' requests for payment, plus similar narrative and listings of Deliverables associated with their Work. Payment for services negotiated as a lump sum will be made in accordance with the percentage of work completed during the preceding month.

17.8.2 In no event will City pay more than seventy-five (75%) of the Agreement Price until acceptance of ALL Pre-Construction Services and award of the final approved Construction Services Agreement for the entire Project by City Council. If CM@Risk does not prepare a GMP Proposal that is acceptable to City, or the GMP Proposal exceeds the City's Construction Budget, then CM@Risk understands and acknowledges that it will forfeit any right to receive the 25% of the Agreement Price being retained by City.

17.8.3 CM@Risk agrees that no charges or claims for costs or damages of any type will be made by it for any delays or hindrances beyond the reasonable control of City during the progress of any portion of Pre-Construction Services specified in this Agreement. Such delays or hindrances, if any, will be solely compensated for by an extension of time for such reasonable period and may be mutually agreed between the parties. It is understood and agreed, however, that permitting CM@Risk to proceed to complete any such Services, in whole or in part after the date to which the time of completion may have been extended, will in no way act as a waiver on the part of City of any of their respective legal rights herein.

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17.8.4 No compensation to CM@Risk will be allowed contrary to Article I, Chapter I, Title 34 of the Arizona Revised Statutes.

17.8.5 If any service(s) executed by CM@Risk is abandoned or suspended in whole or in part, for a period of more than 180 days through no fault of CM@Risk, CM@Risk is to be paid for the services performed prior to the abandonment or suspension.

17.9 **SURVIVAL OF THE DESIGN SERVICES AGREEMENT, DUTIES, OBLIGATIONS AND WARRANTIES**

If the GMP Proposal is accepted by City and a Construction Agreement is entered into between City and CM@Risk, the duties, obligations and warranties of CM@Risk under the Pre- Construction Services Agreement survive and are incorporated into the resulting Construction Agreement.

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SECTION 15 – APPENDICES

The following Appendices attached hereto are referenced in the General Conditions and are incorporated herein.

Appendix 1 – Policy Statement for Calculating Delays and Damages
Appendix 2 – Cost Reduction Incentive Proposals for Design Bid Build Agreements
Appendix 3 – Contractor's Affidavit Regarding Settlement of Claims
Appendix 4 – Forms of Performance Bond
Appendix 5 – Forms of Payment Bond
Appendix 6 – Dispute Resolution
Appendix 7 – Certificate of Completion
Appendix 8 – Construction Sign Detail
Appendix 9 – Cost of the Work (Applicable solely to Construction Manager at Risk and Job Order Contracting)
Appendix 10 Landscape Establishment Period
Appendix 11 Standard Form Construction Escrow Agreement

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CALCULATING DELAYS AND DAMAGES

The purpose of this policy statement is to establish guidelines and procedures for negotiation between the Contractor and City of Chandler relating to compensation for delays pursuant to Arizona Revised Statutes (A.R.S.) 34-221(F). This policy statement contains notice requirements in addition to those set forth in the Agreement Documents, and will be the Agreement Provision contemplated by that statute.

NOTE: As used herein, the term "Engineer" will refer to the City of Chandler City Engineer or his/her designated representative. Nothing in this Policy Statement will be construed to void any provision in the Agreement which requires timely notice of delays or provides for arbitration or any other procedure for settlement or provides for liquidated damages.

I. TYPES OF DELAYS:

For the purposes of this document, there are essentially four types of delays encountered by City of Chandler Construction Contractors; excusable/compensable, excusable/non-compensable, non- excusable, and concurrent. Only delays that extend Agreement Completion Time set forth in the Agreement Document will be considered for issues relating to Agreement extensions or additional compensation. All other delays are considered to be activity delays and do not entitle the Contractor to either time extensions or additional compensation. Agreement Completion Time will be defined as the date set forth in Maricopa Association of Governments (MAG) Uniform Standard Specification Section 101 and as may be modified by the Agreement Documents.

A. Excusable/Compensable:

These are delays caused solely by the City's actions or inactions, are unreasonable under the circumstances, and which were not within the contemplation of the parties to the Agreement at or prior to the time of execution of the Agreement. Since the Contractor presumably has no control over the events causing the delay, he may be entitled to both Agreement time extensions and additional compensation for delay damages. Further, he/she may be entitled to additional compensation from the impact of that delay on other work. Examples of excusable/compensable (E/C) delays include: failure to properly locate an underground City-owned utility within 2 feet of the actual location; failure to relocate City-owned utilities far enough in advance of construction in an area where the Contractor is scheduled to work that it delays start or completion of the Contractor's regularly scheduled work; failure to provide City-furnished equipment or materials in a timely manner if required by the Agreement; failure to acquire necessary Right-of-Way or Public Utility Easements prior to the Contractor beginning Work in the area; failure to timely return Shop Drawings or other Agreement Submittals in accordance with the Agreement; unreasonable delay by the City in making decisions which affect critical activities; surveying errors when the City is contractually responsible for providing Project Surveying. This list is not meant to be all inclusive, but is intended merely as examples of the type of City action or inaction which can result in a Contractor's claim for additional time and compensation.

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B. Excusable/Non-compensable:

These are delays over which neither the City nor the Contractor had control. Since both parties to the Agreement have been potentially damaged by the delay, but neither have caused it, only Time Extensions are warranted. Examples of excusable, non-compensable (E/N) delays include: unusually severe weather; fire; acts of God; failure of non-City owned utilities (SRP, CenturyLink, Cable TV, Southern Pacific Railroad, and Southwest Gas, etc.) to properly or timely locate accurately; failure of non-City owned utilities to relocate in advance of construction; the voluntary or involuntary filing for Bankruptcy protection by a Supplier or Subcontractor which causes the Supplier/Subcontractor to fail to meet a contractual deadline provided the Contractor can provide documentation that he/she executed the required Purchase Orders/Subcontract Agreements and received delivery schedules which, if met, would have eliminated the delay; delays as a result of an incomplete shutdown of a City or non-City owned utility main (the City does not guarantee a complete shutdown). This list also is not necessarily all inclusive but merely indicative of type and class of E/N delays.

C. Non-excusable/Non-compensable:

These are delays caused by the actions or inactions of Contractor or an officer, employee, agent, Subcontractor, Supplier or any other party for whom the Contractor is responsible. Since the Contractor has assumed responsibility for the risks associated with the events that caused the delay, he/she are not entitled to either time extensions or monetary delay damages. All non-excusable delays are also non-compensable. Examples of non- excusable, non-compensable (N/N) delays include: failure to perform by the Contractor, its Subcontractors and/or Suppliers (except as noted in section I.B above); failure to provide adequate labor, materials, and/or equipment on the Project; failure to perform contractually-required coordination with utilities, agencies and other Contractors; failure to notify the Engineer, in writing, of delay impacts within two working days, as required by MAG 104.2.3, or the next work day, as required by MAG 109.8.2; failure to timely submit Shop Drawings; failure to pothole or otherwise visually locate utilities sufficiently ahead of the Work to allow the Engineer to direct corrective action when necessary; delays due to retesting of previously failed work, re-inspection, and/or restaking resulting from faulty workmanship, poor quality control, or lack of compliance with Agreement Specifications. Again, this list is not necessarily all inclusive.

D. Concurrent:

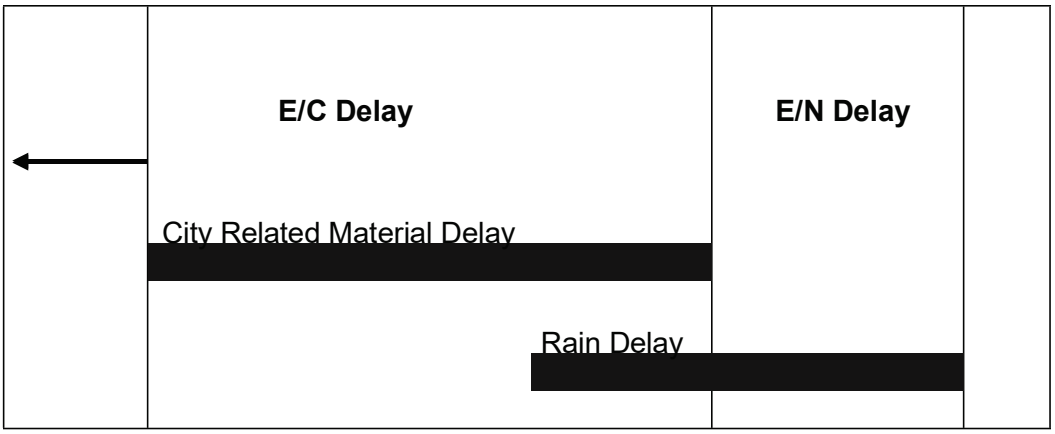
When two or more delays occur simultaneously or overlap, each delay is analyzed separately to determine its impact on the overall project completion date based on when that delay started. Once again, only those delays which actually extend the Agreement completion time are considered as delays. The concurrent delay is considered an additional delay only to the extent it prolongs the delay to the Agreement Completion Time beyond the date that the one it is concurrent with had already delayed that date. For example, if two delays are concurrent, and one is five days long and the second is seven days long, the second concurrent delay will only extend the Agreement Completion Time by two days. The same method of analysis is

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used when there are multiple concurrent delays. Only those extending the Project Completion Date are considered to be delays for the purposes of this policy. The portion of each concurrent delay that delays the completion of the work is classified in the same manner as described previously for individual delays and being either E/C, E/N or N/N.

An example of a concurrent delay is where the City delays furnishing material, but the Contractor could not have installed it anyway due to unusually severe weather. The effect of the first delaying activity will extend for the full duration and will be considered controlling on the Contractor's schedule. A subsequent, concurrent delay will thereafter only be considered to effect the project completion (if at all) once the first delaying activity has ceased to impact the project completion. In this case, if the unusually severe weather continued and delayed the work after the material was delivered, the first portion of the delay would be classified E/C (delay for material) and the second as E/N (delay due to unusually severe weather). Using the procedure set forth above, the entire concurrent portion would be considered E/C as shown in the chart which follows.

Example of a Concurrent Delay:



II. ANALYZING THE DELAY:

The Contractor must provide all documents required or requested by the Engineer to analyze the delay(s). It is important to understand that, prior to the delay analysis, delays and their impacts are alleged issues. The information the Contractor provides will be compared with the Inspector's Daily Log, Schedules and other available Project information and together they will support or refute that delays occurred and, if so, how they impact other work and the overall project completion. The Contractor's delay in providing these documents will be considered prima facie evidence that either the delay did not occur or it did not impact the Project Completion Date and any claim for time extension or damages will be denied.

The Engineer will accept delay analyses in CPM format, as these may demonstrate to his/her satisfaction whether or not Project Completion has been impacted by a specific event. If the Contractor chooses not to use CPM scheduling procedures, then the burden will be on the Contractor to prove to the Engineer's satisfaction that the Project Completion has been impacted. The procedures

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below assume that the Contractor is using CPM scheduling methods. As a minimum the Contractor must provide the following materials to the Engineer:

A. As-Planned Schedule. The initial construction schedule, required by the Agreement Documents, will be considered the baseline schedule. It is to the Contractor's advantage that the As-Planned (baseline) Schedule be as detailed as possible in order for delays, as they occur, to be incorporated into the schedule in representative locations. It is also to the Contractor's advantage to use a computer software program to generate the schedule since updated schedules are required monthly by the Agreement Documents and since updated schedules are required to support delays and requests for additional compensation for delays. The As-Planned (baseline) Schedule must be presented in network format which clearly shows the interrelationships of the activities. The Contractor must also provide a printout of the activities showing early start, early finish, late start, late finish, duration and float. The activity list printout must also indicate predecessor and successor activities.

B. As-Built Schedules. The as planned (baseline) schedule must be updated with complete progress-to-date information (actualized) up to the date of the start of the alleged delay. Each updated schedule will serve as the as-built schedule for analyzing the alleged delay and provide a new baseline as-planned schedule for the next delay. This process must be repeated for each alleged delay as it occurs. In updating the baseline schedule, the alleged delay must be treated as an activity and inserted into the schedule as a predecessor to the impacted activity (ies). When an activity that has already started is impacted, it is preferable to divide this activity into two parts and show the impact affecting the second part. For schedules which incorporate a time line (or data date), the delay activity must be inserted at the time it actually occurred. Some software scheduling programs have a PAUSE-RESUME feature that can be used to facilitate the requirements. The updated schedule must also be accompanied by a listing of activities as with the baseline schedule. This activities list must contain the alleged delay as an activity showing the duration and the activities which are predecessors and successors to it. When computer generated schedules are used, the Contractor must provide, in electronic media format, the complete data files for the updated schedule that included the delay activity, preferably either in Suretrak or in Microsoft Project. Each electronic media must contain a label identifying the Project name, Contractor's name, program name and version number, data date and project finish date.

C. Other Documents: In order to determine the amount of the alleged delay and if it is compensable, the Contractor must provide all backup documentation relevant to the issue and as required by the Engineer. This documentation must include copies of such items as: purchase orders; delivery schedules; correspondence; memoranda of telephone calls; force account daily worksheets (initialed by the Inspector); payroll data; estimating (bid) worksheets; and any other materials which may be requested by the Engineer.

D. Procedure: Only after receipt of sufficient documentation will the Engineer analyze each alleged delay and determine if it is supported or refuted. If supported, the Engineer will determine if it is excusable or non-excusable, compensable or non-

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compensable. If the Engineer determines that the delay did not affect the Project Completion, the as-planned schedule, which has been updated to the date of the alleged delay, must be revised to indicate this. If the Engineer determines the delay did occur but was N/N, then no time extension will be granted. It is imperative that an actualized schedule be submitted as soon as the occurrence of the alleged delay is known. In no event will the Contractor submit an actualized updated schedule later than 60 days after the occurrence of the alleged delay becomes known.

If the Engineer determines the delay did occur and was excusable but, due to a reason listed in section I.B. is non-compensable, he/she will determine the length of the E/N delay and prepare a Change Order to add that time to the Agreement. The Engineer's decision will be final.

If the Engineer determines the delay was excusable and compensable, he/she will determine the length of the E/C delay and proceed to review the Contractor's damage calculations in accordance with Section III. The Engineer will check the Contractor's calculations, review the backup documentation provided, and prepare a Change Order to cover both the additional compensation and the time extension. The Engineer's decision on both the time extension and additional compensation for the delay will be final.

If the issue involves a concurrent delay, the Engineer will analyze available data to determine the portions which are E/C, E/N, and/or N/N as described above. The Engineer will proceed to determine the length of E/C delay and verify the Contractor's delay damage calculations, if any are provided. Upon completion of this review, the Engineer will prepare a Change Order for the Contractor's review and signature. The Engineer's decision regarding excusable delay and additional compensation for the delay is final.

The amount of time the Engineer will require to analyze the alleged delay(s) will depend upon the Engineer's workload, the complexity of the delay analysis, availability of supporting data, extent of cooperation by the Contractor, and other factors beyond the Engineer's control. It is entirely possible other delay(s) may occur while the Engineer is analyzing particular claim for delay(s). The Engineer's failure to respond to the Contractor in a set period of time will not be used as the basis for a further delay claim or as justification for extending and existing delay claim. The time required for delay analysis by the Engineer will not be counted against the time allotted for processing Final Payment as required by (MAG Section 109.7(B)) or the release of retention and Final Payment as prescribed by A.R.S. Arizona Revised Statutes §34-221.

III. CALCULATING MONETARY DELAY DAMAGES:

Additional compensation for delay, when authorized by the Engineer, will be calculated in accordance with MAG Section 109.5 ACTUAL COST WORK with the following exceptions:

A. No additional compensation or other monetary damages will be awarded or paid for any loss of anticipated profits by the Contractor, Subcontractors or Suppliers.

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B. No additional compensation or other monetary damages will be awarded for home office overhead or non-project general conditions of the Contractor, Subcontractors or Suppliers.

C. Equipment:

1. Contractor-owned equipment rate calculations must be computed in accordance with Section 109.04(D)(3), Arizona Department of Transportation "Standard Specifications for Road and Bridge Construction," 2008 or latest edition and as modified herein. Year and regional adjustment factors must be based on the most recent publications of the Rental Rate Blue Book for Construction Equipment, published by the Equipment Guide-Book Company, San Jose, CA, same as provided by ADOT and in print as of the date of alleged delay. In no event will the compensation for Contractor-owned equipment exceed the purchase price, including tax, paid by the Contractor for the equipment. Compensation will not be allowed for small tools or equipment that show a daily equipment rental rate of less than $5.00 per day or for unlisted equipment that has a value of less than for hundred dollars ($400.00).
2. For leased and rented equipment or equipment not otherwise listed in the Blue Book, rental contracts, or other supporting data will be used to establish the hourly rate. No hourly operating expense will be allowed for delay on standby equipment. In no case will equipment be considered for rental which exceeds the hourly rate for the first eight hours and the daily rate divided by eight for all additional hours as compared with similar equipment listed in the Blue Book. The hourly standby rate must be computed as the lesser of:

    a. Dividing the monthly invoice or rental value by 176 hours per month when the equipment is utilized by the Contractor for more than three weeks;

    b. Dividing the monthly invoice or rental value by 40 hours per week when the equipment is utilized by the Contractor for more than three days.

    In no event will compensation be paid for delay at more than 8 hours per day or 40 hours per week.

3. Except for vehicles used by supervisory personnel, all equipment will be paid at the "standby" rate during the delay period.

4. Equipment brought solely to mitigate the delay (such as pumps, light plants, etc.) may be paid in accordance with ADOT section 109.04(D) (3).

5. The Blue Book regional adjustment will apply in determining rental rates.

D. Material:

Allowable material charges may include, in addition to material incorporated in the

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work material used to mitigate the delay such as barricades, plates, shoring, cold mix, etc. Except in emergencies the Contractor will not employ such material without the prior written approval of the Engineer.

E. Labor:

1. Except for Supervisory Personnel (Superintendent, Project Engineer, and Foremen), labor wages will not be paid after the first one-half day of claimed delay or impact. It is expected the Contractor will reassign or layoff unneeded employees.

2. For Foreman wages to be included, that Foreman must have been actively employed on the project prior to the commencement of the delay and be directly responsible for the activity being delayed.

3. Labor burden must be actual amounts incurred but must not exceed the ADOT approved rate.

F. All costs (equipment, material, and labor) must be substantiated by the City of Chandler's Daily Work Reports.

IV. DOCUMENT REQUIRED FOR CLAIM ANALYSIS:

For purposes of reviewing the Contractor's request for additional compensation, it will be required that the Contractor submit the following listed information. Information requested must be prepared on forms which are substantially similar to the City of Chandler's Daily Work Report form, a copy of which is attached as an exhibit.

A. Labor:

For each employee, laborer, and foreman, for which compensation is requested: Name, classification, dates of work performed, daily hours worked, total hours worked, labor rates, labor burden rates, overtime or premium time charges. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Certified payroll reports for the period of work claimed.
2. Accounting of Fringe Benefits – certified by a CPA.
3. Contractor's and Subcontractor's daily field reports and daily diaries.

B. Materials:

For all materials for which compensation is requested, if any, total quantities of materials, prices, extensions and transportation costs must be provided on a daily basis. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Invoices for all materials incorporated.
2. Weigh tickets.
3. Purchase orders.

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4. Delivery schedules.
5. Quotes or proposals from manufacturers or supplier.
6. Freight bills, Bills of Lading, or other documentation to show transportation costs.
7. Restocking charges-invoices from vendor.

C. Equipment:

For all equipment, the Contractor must provide the Engineer with the designation, dates and hours of usage, dates and hours of standby, if any, daily hours, total hours, rental rates and extension for each unit of equipment and machinery. Rental rates will be as established in Section III. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Owned:
   a. Purchase contracts(s).
   b. Depreciation schedule(s).
   c. Invoices for fuel, lube, repairs and other operating costs.

2. Leased:
   a. Lease agreement with hourly rate, overtime rate, double shift rate, etc.
   b. Invoices or other documentation showing hours worked on a daily basis.

D. Subcontractors/Owner-Operators:

In the event the Contractor submits a claim which includes requests for compensation for Subcontractors of Owner-Operators, the same information requested of the Contractor must be provided by the Subcontractor/Owner-Operator. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Bid/Estimate work sheets and/or spreadsheets.
2. Subcontract Agreements or Agreements with Owner-Operator.
3. All invoices and billing statements received from the Subcontractor/Owner-Operator which relates to the amount requested.

E. Miscellaneous:

Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Evidence of payment for bonds and insurance premiums (MAG 109.5.6).
2. Taxes – unless the Contractor can show otherwise, taxes are reimbursable at 65% of the total cost (less bonds and insurance).

V. TIME LIMIT ON SUBMISSIONS OF CLAIM FOR DELAY OR IMPACT DAMAGES:

No claims for delay or impact damages will be considered or allowed more than 45 days after the event or occurrence which the Contractor claims gives rise to the delay or impact. In no event will a

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claim for delay or impact damages be considered after submission by the Contractor of the Final Payment Request.

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COST REDUCTION INCENTIVE PROPOSALS FOR DESIGN BID BUILD AGREEMENTS

The Contractor may submit to the Engineer proposals for modifying the Plans, Specifications, or other requirements of the Agreement for the sole purpose of reducing the total cost of Project construction. The proposals must not impair in any manner the essential functions or characteristics of the project; including but not limited to service life, economy of operations, ease of maintenance, desired appearance, compatibility with existing or planned equipment, standardization of systems, or design and safety standards.

It must not be inferred from this Policy that the Engineer is required to consider any proposal submitted.

Submissions that propose changes in the basic design of a bridge, propose changes in pipe line size, materials, bedding conditions, pipe specifications; or that propose any change in pavement design will not be considered.

Proposals submitted pursuant to this Policy will be identified as Cost Reduction Incentive Proposals. They must be submitted in writing and, at a minimum, contain the following.

1. Complete the attached or similar cost reduction incentive proposal form.

2. A description of both the existing Agreement Requirements for performing the work and the proposed changes.

3. All Engineering Drawings and computations necessary for the thorough and expeditious evaluation.

4. An itemization of the existing Agreement Requirements that must be changed if the Proposal is adopted and a recommendation as to the manner in which the change should be made.

5. A detailed estimate of the cost of performing the Work under the existing Agreement and under the proposed changes, including the cost of developing and implementing the changes.

6. The Agreement items affected by the proposed changes and any variations in quantities resulting from the changes.

7. An objective estimate of any effects the proposal will have on collateral cost to the City, costs of related items, and cost of maintenance and operation.

8. A statement as to the effect that the Proposal will have on the time for the completion of the Project.

9. A statement as to the time by which a Change Order adopting the Proposal must be executed or when the Engineer must have given verbal approval.

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Proposals will be processed expeditiously; however, the City will not be liable for any delay in acting upon any Proposal nor for any failure to accept any Proposal pursuant to this Special Provision.

The Engineer will be the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of the Proposal. The Contractor will be notified in writing by the Engineer as to whether his/her Proposal has been accepted. The decision by the Engineer is final.

When the City deems such action to be appropriate, it reserves the right to require the Contractor to share equally in the cost to the City of investigating, evaluating, and processing the proposal as a condition for the consideration of such Proposal. Such cost must be shared whether the Proposal is accepted or rejected. When such a condition is imposed, the City will estimate these costs and the Contractor must indicate his acceptance thereof in writing. Such acceptance will authorize the City to deduct the Contractor's share of the costs from any monies due or that may become due to the Contractor under the Agreement.

If the Contractor's Proposal is accepted in whole or in part, the necessary Agreement Modifications and Agreement Price Adjustments will be affected by the execution of a Change Order which will specifically state that it is executed pursuant to this Special Provision.

The Contractor must continue to perform the work in accordance with the requirements of the Agreement until a Change Order incorporating the Proposal has been executed or until he/she has been given verbal approval by the Engineer that his/her Proposal has been accepted. If the Change Order has not been executed or he/she has not been given verbal approval on or before the date specified on the attached cost reduction incentive proposal form or on or before such other date as the Contractor may have subsequently specified in writing, the Proposal may be deemed to be rejected.

The executed Change Order will incorporate the changes in the Plans, Specifications, or other requirements of the Agreement which are necessary to permit the Proposal, or such part of it which has been accepted, to be put into effect, and will include any condition – upon which the City's approval thereof is based, if such approval is conditional. The executed Change Order may also extend the time for the completion of the Agreement if such an extension has been deemed to be warranted by the Engineer as a result of his evaluation of the Proposal.

The executed Change Order will also establish the estimated net savings in the cost of performing the Work attributable to the Proposal effectuated by the Change Order. In determining the net savings, the right is reserved to the Engineer to disregard the Agreement bid prices if, in his/her judgment, such prices do not represent a fair measure of the value of the Work to be performed or to be deleted. The net savings will be established by determining the Contractor's cost of performing the Work, taking into account his/her cost of developing the Proposal and implementing the change, and reducing this amount by any ascertainable collateral costs to the City. The executed Change Order may provide that the Contractor be paid 50 percent of the estimated net savings amount.

The executed Change Order may also provide for the adjustment in Agreement prices. Agreement prices may be adjusted by subtracting the City's share of the accrued net savings.

The amount specified to be paid to the Contractor in the executed Change Order which effectuates a Cost Reduction Proposal will constitute full compensation to the Contractor for the Cost Reduction

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Proposal and the performance of the work thereof pursuant to the said Change Order.

Upon acceptance of a Cost Reduction Incentive Proposal, any restrictions imposed by the Contractor on its use or on disclosure of the information will become void, and the City thereafter will have the right to use all or any part of the Proposal without obligation or compensation of any kind to the Contractor.

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COST REDUCTION INCENTIVE PROPOSAL FORM

TO: CIP City Engineer

FROM:

PROJECT NAME: **HUNT HIGHWAY WELL**

CITY PROJECT NUMBER: **WA2405.401**

DATE:

Summary of Change (Brief description of proposed change including advantages and disadvantages):

ESTIMATED COST SUMMARY (Attached detailed estimate):

A.	Original Cost:	$
B.	Proposed Cost:	$
C.	Construction Savings (A-B):	$
D.	Gross Savings (Included OH %, Bond %)	$
E.	Contractor Implementing	$
F.	City Implementing Cost:	$
	Reduction in Agreement Price (C+D-E-F) x 50%:	$

Date by which a Change Order must be issued so as to obtain maximum cost reduction:

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CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona
Date _____

Project Name: Hunt Highway Well
City Project No.: WA2405.401

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the total compensation of $_____, as set out in the final pay application, as full and complete payment under the terms of the Agreement, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20____.

_____
CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20 _____.

_____
Notary Public

_____
My Commission Expires

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PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____(hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Agreement with the Obligee, dated

the _____ day of _____, 20___ for construction of **WA2405.401, Hunt Highway Well** which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, and conditions of the Agreement during the original term of the Agreement and any extension of the Agreement, with or without notice of the Surety, and during the life of any guaranty required under the Agreement, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the Agreement that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), as Principal, and _____(hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, the Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Agreement with the Obligee, dated the _____ day of _____, 20___ for construction of **WA2405.401, Hunt Highway Well** which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal promptly pays all moneys due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in said Agreement, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2 Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

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DISPUTE RESOLUTION

A. INFORMAL DISPUTE RESOLUTION

The parties to the Agreement agree that time is of the essence in relation to performance of the Agreement and completion of the Project, therefore any and all disputes in relation to the Agreement will initially be referred to the Project Manager, the Design Professional Representative and/or the Contractor Representative as applicable to the dispute, for immediate resolution. If, after good faith efforts to reach a resolution, none is reached, any party to the dispute may submit the dispute to the Dispute Resolution Representative ("DRR") process set forth below, which is intended to be an expedited process.

B. DISPUTE RESOLUTION REPRESENTATIVE ("DRR") PROCESS

1. The Parties under the Agreement agree that all claims and disputes in relation to the Project which are not resolved in the ordinary course of the Project ("Claim" or "Claims") will, as a prerequisite to any mediation, or litigation of the Claim, first be submitted for resolution between the designated Dispute Resolution Representatives of the Parties as set forth herein (the "DRR Process").

2. The DRR Process will be initiated through service of a DRR Notice as set forth below:

   a. For claims by the Contractor or the Design Professional, the DRR Process will be initiated by the party asserting the claim serving written notice on the City setting forth in detail: (i) the basis for the claim; (ii) the effect of the Claim upon the construction of, and/or Project Schedule for, the Project;
   (iii) the specific relief requested, the amount thereof, and how such was calculated; (iv) the parties involved in the Claim, and how they are involved; (v) the specific Agreement provisions in the Agreement Documents (including, if applicable, drawings and specifications) which apply; and (vi) efforts made to date to resolve the Claim.

   b. For claims by the City, the DRR process will be initiated by the City providing written notice to the other parties of the basis and amount of its claim, the parties involved in the Claim, and how they are involved, the provisions in the Agreement Documents that apply, and the relief requested.

   c. The DRR Notice will be hand-delivered and e-mailed to the other parties' designated Dispute Resolution Representatives.

3. The other parties will respond in writing to the DRR Notice ("DRR Response") within ten (10) calendar days of receipt of the DRR Notice, setting forth those items set forth in the DRR Notice that they agree with, dispute, and/or have questions concerning. The DRR Response will be hand-delivered and e-mailed to the other parties' Dispute Resolution Representatives.

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4. The designated Dispute Resolution Representatives for the Parties to the claim will then meet as soon as possible and in any event within twenty (20) calendar days of submission of the DRR Notice (regardless of whether a DRR Response has been submitted by all parties involved in the dispute), at a mutually agreed upon time and place, to attempt to resolve the Claim based upon the DRR Notice and DRR Response.

5. At any time after the first meeting required above, either party may terminate the DRR Process by written notice to the other party.

6. The parties may agree, in writing, to extend or modify the time limits or other provisions of the DRR process in relation to a specific pending Claim.

7. Unless otherwise designated in a written notice to the other parties, the City and the representatives of the Contractor and of the Design Professional will act as the parties' designated Dispute Resolution Representatives.

8. If a resolution of the Claim is reached, that resolution must be set forth in writing and must be signed by the Parties' designated Dispute Resolution Representative. If the resolution involves a change in any Agreement Documents, the Agreement Price, the Project Schedule, or any other change requiring a written Change Order or Amendment, the parties must execute an appropriate written Change Order or Amendment pursuant to the terms of the Agreement Documents.

C. MEDIATION

1. Unless extended by written agreement of the parties involved in the dispute, any Claim not resolved through the DRR process set forth above within five (5) calendar days after the meeting required under B (4) above, or after the DRR is terminated pursuant to B (5) above, whichever is earlier, will be submitted to mediation as a condition precedent to litigation by either party.

2. The mediation will be commenced by written demand upon the other party for mediation. If the parties cannot agree upon a mediator within ten (10) calendar days of the written demand, either party may make a request to the Civil Presiding Judge of the Maricopa County Superior Court to appoint a mediator. The mediation will occur within forth (40) calendar days of the written demand for mediation, unless the parties agree, in writing, to a longer period of time.

3. The qualifications for the mediator will be that he/she be: (a) an experienced mediator, arbitrator or litigator of construction disputes; and (b) having engaged a significant portion of his/her time involving and/or resolving construction disputes for at least the past five (5) years.

4. Each party will provide to the other party and the mediator all of the information and documentation required under B(1) and (2) above, together with any additional information and documentation which the party believes relevant. In addition, the parties will exchange, and provide to the mediator such additional memoranda, information and/or documentation, as the

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mediator may request, and in the form and at such times, as the mediator may direct.

5. The parties will share the mediator's fee and any filing fees equally. The mediation will be held in Chandler, Arizona, unless another location is mutually agreed upon. Agreements reached in mediation will be specifically enforceable in any court having jurisdiction thereof.

D. LITIGATION

Any claim arising out of or related to the Agreement, except Claims relating to aesthetic effect and except those claims waived as provided for in the Agreement Documents, must be resolved through litigation in the Maricopa County, Arizona Superior Court.

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CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CERTIFICATE OF COMPLETION

PROJECT NAME:	**HUNT HIGHWAY WELL**		
CITY PROJECT NO.:	**WA2405.401**		
If Federally Funded:			
FEDERAL NO.:		**ADOT NO:**	

(*This section to be completed by Prime*)
I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER FOR THIS PROJECT HAVE BEEN DELIVERED IN ACCORDANCE WITH THE AGREEMENT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE AGREEMENTOR UNDER THE AGREEMENT HAVE BEEN COMPLETED AS OF THE COMPLETION DATE LISTED HERE:

FINAL ACCEPTANCE DATE:	

PRIME CONTRACTOR:

FIRM NAME:			
PRINCIPAL:			
TITLE:			
SIGNATURE:		DATE:	

CERTIFIED BY *[INSERT NAME AND TITLE OF PARTY THAT OVERSEES CONSTRUCTION]*:

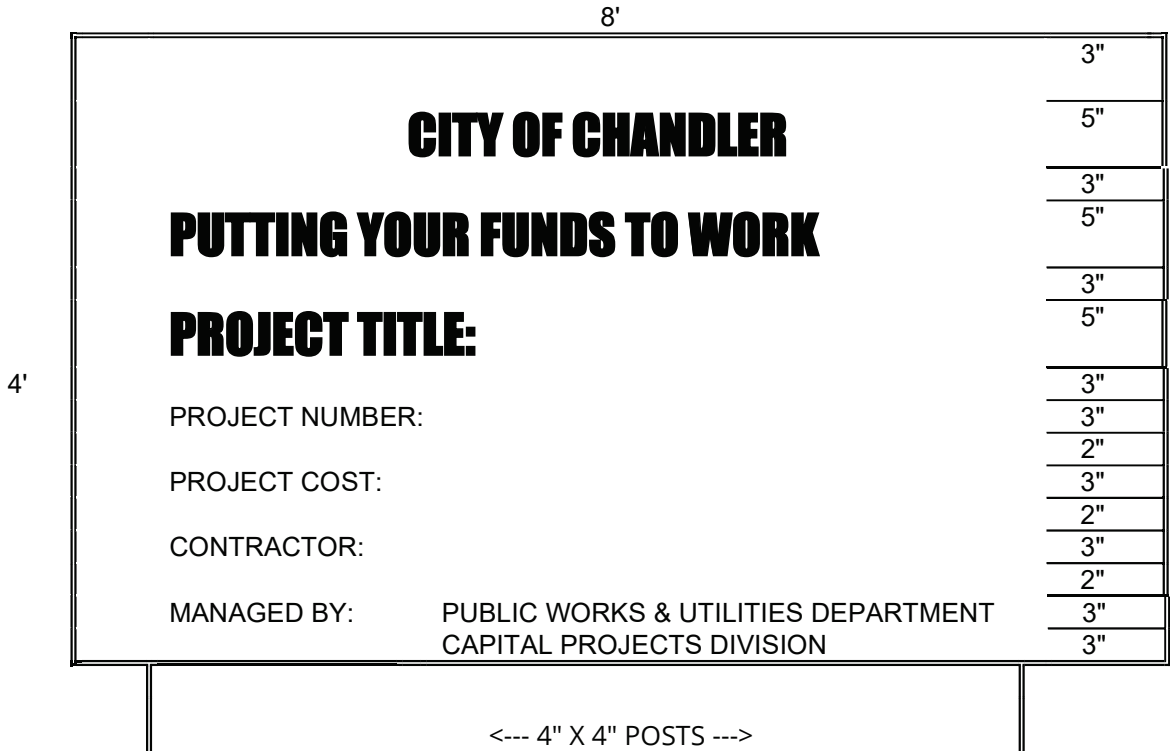
FIRM NAME:			
SIGNATURE:		DATE:	

PROJECT ACCEPTED BY CITY OF CHANDLER:

NAME:			
SIGNATURE:		DATE:	

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CONSTRUCTION SIGN DETAIL



NOTES:

SIGN(S) MUST BE FURNISHED AND ERECTED PRIOR TO COMMENCEMENT OF CONSTRUCTION. POSTS MUST BE ANCHORED A MINIMUM OF TWO FEET INTO THE GROUND. BOTTOM OF SIGN MUST BE A MINIMUM OF FOUR FEET ABOVE THE GROUND.

TYPICAL PROJECT IDENTIFICATION SIGN FOR GENERAL PROJECTS MUST BE NON-REFLECTORIZED GREEN BACKGROUND, AND NON-REFLECTORIZED WHITE LETTERS AND NUMERALS.

ONE SIGN MUST BE ERECTED FOR BUILDINGS AND OTHER LIMITED AREA SINGLE SITES. FOR MULTIPLE SITES, ONE SIGN MUST BE ERECTED AT EACH SITE.

FOR LINEAR PROJECTS ONE HALF MILE OR LONGER, PLACE ONE SIGN AT EACH END OF THE PROJECT.

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COST OF THE WORK

(APPLICABLE SOLELY TO CONSTRUCTION MANAGER AT RISK AND JOB ORDER CONTRACTING)

SECTION 1 – COSTS TO BE REIMBURSED

1.1 Cost of the Work

The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs must be at rates not higher than the standard paid at the place of the Project except with prior consent of City. The Cost of the Work will include only the items set forth in this Section 1.

1.2 Labor Costs

1.2.1 Wages of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with City's approval, at off-site workshops. Cost to be reimbursed will be the actual wages paid to the individuals performing the work.

1.2.2 Wages or salaries of the Contractor's supervisory and administrative personnel when stationed at the site with City's approval. No Contractor personnel stationed at the Contractor's home or branch offices will be charged to the Cost of the Work. Non-field office based Contractor management and support personnel are expected to provide service and advice from time to time throughout the job and his/her time devoted to Project matters is considered to be covered by the Contractor's Fee.

1.2.3 Wages and salaries of Contractor's supervisory or administrative personnel who would normally be stationed at the field office in accordance with Section 1.2.2 but who become engaged, at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of his/her time required for the Work. Employee bonuses and/or costs associated with Employee Stock Ownership Plans ("ESOP") will not be considered reimbursable labor or labor burden costs and will be considered non-reimbursable costs considered to be covered by the Contractor's Fee.

1.2.4 Costs paid or incurred by Contractor for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holiday, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Subparagraphs 1.2.1 through 1.2.3.

1.2.4.1 Cost of the Work will include the actual net cost to Contractor for worker's compensation insurance attributable to the wages chargeable to the Cost of Work per this Agreement. The actual net cost of worker's compensation must take into consideration all cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, any applicable weekly maximums, etc. Contractor may charge an estimated amount for worker's compensation insurance costs, but will make appropriate cost adjustments to actual costs within 45 days of receipt of actual cost adjustments from the insurance carrier.

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1.2.4.3 Overtime wages paid to salaried personnel (if approved in advance in writing by City) will be reimbursed at the actual rate of overtime pay paid to the individual. No time charges for overtime hours worked on the Project will be allowed if the individual is not paid for the overtime worked.

1.2.4.4 Any overtime premium or shift differential expense to be incurred by Contractor for hourly workers will require City's advance written approval before the incremental cost of the overtime premium or shift differential will be considered a reimbursable cost. If the Contractor is required to work overtime as a result of an inexcusable delay or other coordination problems caused by the Contractor or anyone he/she is responsible for, the overtime premium and/or shift differential expense portion of the payroll expense and related labor burden costs will be considered as cost not to be reimbursed.

1.2.4.5 Reimbursable labor burden costs will be limited to payroll taxes, worker's compensation insurance, the employer's portion of union benefit costs for union employees working on the Project, and the actual verifiable fringe benefit costs incurred by Contractor for non-union individuals working on the Project subject to the following maximum percentages for the following reimbursable non-union fringe benefit costs. The following maximums (as a percentage of reimbursable actual wages by individual) will apply for each of the following types of fringe benefit costs specifically attributable to each of the non-union personnel working on the Project:

- Medical Insurance, Dental, Life & AD&D Insurance: 12.00%
- Holiday, vacation and other paid time not worked: 10.00%
- Pension Plan Contributions to Vested Employee Account, Simplified Employee Pension Plans, or 401K matching plans (Note: ESOP related costs are covered by the Contractor Fee) 10.00%

For non-union personnel, no other fringe benefit costs (other than the three specific categories listed immediately above, will be considered reimbursable Cost of Work. Any labor burden costs that are in excess of the amounts considered reimbursable or are otherwise not considered reimbursable under the terms of this agreement are intended to be covered by the Contractor Fee.

1.3 Subcontract Costs

1.3.1 Payments made by Contractor to Subcontractors in accordance with the requirements of the subcontracts.

1.3.2 For Scope of Work Bid Packages typically performed by Subcontractors, Contractor may "self- perform" such work on an actual cost basis subject to an agreed upon Guaranteed Maximum Price for the "self-performed work". The Contractor must, unless agreed to by City in writing, bid his/her proposed guaranteed Maximum Price for the work to be "self-performed" against at least three other interested trade Contractors. All savings under any such Subcontract for "self-performed work" must be applied to reduce the Cost of Work under the Agreement and the Guaranteed Maximum Price. For purposes of defining "self-performed work" subject to this provision, any division of Contractor, or any separate Contractor or Subcontractor that is partially owned or wholly owned by the Contractor or any of his/her employees or employee's relatives will be considered a related party entity and will be subject to this provision regarding "self-performed work". No self-performed work will

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be allowed to be performed on a Fixed Price basis.

1.3.3 Contractor (with respect to its Suppliers, Subcontractors and all lower tier Subcontractors) must provide City advance written notice and must obtain City's approval for any proposed Subcontract Change Order, Material Purchase Order, or other financial commitment in an amount in excess of $5,000 prior to placing such order or entering into such agreement (regardless of whether or not any such commitment will affect the prime Agreement Guaranteed Maximum Cost). It is agreed that sums applicable to any Subcontract Change Order, Purchase Order or other financial commitment entered into in violation of the above notice and approval requirement will not be included in the amounts owning to Contractor, Subcontractors or Suppliers whether as Costs of the Work or as reasonable termination costs in the event of termination.

1.4 Costs of Material and Equipment Incorporated in the Completed Construction

1.4.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

1.4.2 Costs of materials described in the preceding Subparagraph 1.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, in any, will become City's property at the completion of the Work or, at City's option, may be sold by the Contractor. Any amounts realized from such sales must be credited to City as a deduction from the Cost of Work.

1.4.3 Proceeds from the sale of recyclable materials, scrap, waste, etc. will be credited to job cost.

1.5 Costs of Other materials and Equipment, Temporary Facilities and Related Items

1.5.1 Costs, including transportation and storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers, that are provided by the Contractor at the site and fully consumed in the performance of the Work; and cost (less salvage value) of such items if not fully consumed, whether sold to others or retained by Contractor. Cost for items previously used by Contractor will mean fair market value.

1.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by Contractor at the site, whether rented from Contractor or others, and costs of transportation, installation, minor repairs and replacements, dismantling and removal thereof. Rates and quantities of equipment rented will be subject to City's prior written approval.

1.5.2.1 The Projected usage for each piece of equipment to be rented for use on the Project and the estimated total rentals must be considered by Contractor before the piece of equipment is rented so that an appropriate rent versus buy decision can be made. Purchased equipment must be considered "job owned". At the completion of the Project, Contractor must transfer title and possession of all remaining job-owned equipment to City, or Contractor may keep any such equipment for an appropriate fair market value credit to job cost, which will be mutually agreed to by City and Contractor.

1.5.2.2 Each piece of equipment to be rented must have hourly, daily, weekly and monthly rates and

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the most economical rate available will be reimbursed based on the circumstances of actual need and usage of the piece of equipment while it is stationed at the jobsite. When the piece of equipment is no longer needed for the work, no rental charges will be reimbursed if the piece of equipment remains at the jobsite for the convenience of Contractor.

1.5.2.3 Equipment Rental Rates

1.5.2.3.1 Compensation for equipment used on the Project will be paid in accordance with the Equipment Plan submitted by Contractor in the accepted GMP Proposal and no payments will be made in excess of the rates set forth in the Equipment Plan, or actual documented costs, whichever is less.

1.5.2.3.2 All equipment rental rates and costs are subject to City's right to audit when submitted as part of Equipment Plan and/or at any time during the Project.

1.5.2.4 The aggregate rentals chargeable for each piece of Contractor owned tools or equipment must not exceed 50% of the fair market value of such equipment at the time of its commitment to the Work. The original purchase price and date of purchase of the equipment will be documented with a copy of the purchase invoice for the piece of equipment. Such aggregate limitations will apply and no further rentals will be charged even if a piece of equipment is taken off the job and is later replaced by a similar piece of equipment. For purposes of computing the aggregate rentals applicable to aggregate rental limitations, rental charges for similar pieces of equipment will be combined if the pieces of equipment were not used at the same time.

1.5.2.5 Fair market value for used material and equipment as referred to in the Agreement Documents will mean the estimated price a reasonable purchaser would pay to purchase the used material or equipment at the time it was initially needed for the job. Note: This is usually lower than the price a reasonable purchaser would pay for similar new construction material or construction equipment.

1.5.2.6 All losses resulting from lost, damaged or stolen tools and equipment will be the sole responsibility of Contractor, and not City, and the cost of such losses will not be reimbursable under the Agreement.

1.5.2.7 Contractor will be required to maintain a detailed equipment inventory of all job-owned equipment (either purchased and charged to job cost or job-owned through aggregate rentals) and such inventory must be submitted to City each month. For each piece of equipment, such inventory should contain at a minimum (1) original purchase price or acquisition cost (2) acquisition date (3) approved Fair Market Value at the time the piece of equipment was first used on the job and (4) final disposition.

1.5.2.8 All costs incurred for minor maintenance and repairs will be reimbursed at actual cost. Such costs include routine and preventative maintenance, minor repairs and other incidental costs. Repairs and/or replacement of a capital nature are considered to be covered by the rental rates. Major repairs and overhauls are not considered routine and ordinary; consequently such costs are not reimbursable and are intended to be covered by the rental rates.

1.5.3 Costs of removal of debris from the Site.

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1.5.4 Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

1.5.5 That portion of the reasonable expenses of Contractor's personnel incurred while traveling in discharge of duties connected with the Work.

1.5.5.1 No travel expenses will be reimbursed to Contractor's representatives unless Project related travel required them to travel to a destination more than 100 miles from the Project location. Any travel involving airfare will require advance written approval by an authorized City's representative.

1.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, if approved in advance by the City.

1.5.7 Reproduction costs will be the actual costs of reproduction subject to a maximum of five cents ($.05) per square foot for prints and a maximum of five cents ($.05) per 8 ½ by 11-inch page for offset print or photo copied agreement documents, specifications, etc. Telephone costs will be the actual costs paid to the third party telephone company for the field office telephone.

1.6 Miscellaneous Costs

1.6.1 That portion of insurance and bond premiums that can be directly attributed to the Agreement. The City will reimburse Contractor for contractually required bond at time of first pay application for GMP and Cost-Based Agreements upon receipt of proof of payment from the Contractor. If the Contractor completes Work for less than the Agreement Price, Contractor must credit the City a pro- rated amount for the unused portion of the bond payment

1.6.1.1 Contractor's actual cost for insurance will be considered to be included within the Maximum limit for General Conditions Costs. All premiums for any insurance and bonds required for the Project must reflect the net actual costs to Contractor after taking into consideration cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, refunds, etc.

1.6.1.2 The amount to be reimbursed to Contractor for all contractually required insurance will be actual costs not to exceed a total of 2% of the Agreement Value, unless Contractor establishes to City's satisfaction that the actual cost is higher and City agrees to such actual higher cost in writing. If Contractor's cost of contractually required insurance is greater than the amount agreed to be reimbursed per this Agreement Provision, the difference will be considered to be covered by the Contractor's Fee. The City will reimburse Contractor for contractually required insurance on a monthly basis for GMP and Cost-Based Agreements. If Contractor can demonstrate substantial savings by paying for all insurance in advance, the City may agree to reimburse all insurance costs at time of first pay application for GMP and Cost-Based Agreements with proof of payment from Contractor.

1.6.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work.

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1.6.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which Contractor is required by the Agreement Documents to pay.

1.6.4 Fees of laboratories for tests required by the Agreement Documents, except those related to defective or nonconforming Work and which do not fall within the scope of ¶ 1.7.3 below.

1.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Agreement Documents; the cost of defending suites or claims for infringement of patent rights arising from such requirement of the Agreement Documents; and payments made in accordance with legal judgments against Contractor resulting from such suites or claims and payments of settlements made with City's consent. However, such costs of legal defenses, judgments and settlements must not be included in the calculation of the Contractor's Fee or subject to the Guaranteed Maximum Price.

1.6.6 Data processing costs related to the Work. However, any such data processing costs will be limited to the cost of personal computer hardware used at the field office in the normal day to day administration, management and control of the Project. The aggregate charges for any such hardware must not exceed the Fair Market Value of the hardware at the time it was brought to the field office. If the total charges for any particular piece of hardware reach an amount equal to the Fair Market Value, that particular piece of hardware must be turned over to City whenever it is no longer needed for the Project. If Contractor elects to keep the particular piece of hardware, the job costs must be credited with a mutually agreeable amount which will represent the Fair Market Value of the particular piece of hardware at the time it was no longer needed for the job. Software or other costs associated with the use of computer programs will not be considered to be a reimbursable cost and will be considered to be covered by the Contractor's Fee.

1.6.7 Deposits lost for causes other than Contractor's negligence or failure to fulfill a specific responsibility to City as set forth in the Agreement Documents.

1.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between City and Contractor, reasonably incurred by Contractor in the performance of the Work and with City's prior written approval; which approval will not be unreasonably withheld.

1.6.9 Expenses incurred in accordance with Contractor's standard personnel policy for relocation and temporary living allowances of personnel required for the Work, if pre-approved by City in writing. If City authorizes the reimbursement of relocation costs, the reimbursable relocation expenses will be limited to a maximum of $50,000 per person. Any relocation cost incurred by Contractor in excess of the amount reimbursed by City will be considered to be covered by the Contractor's Fee.

1.7 Other Costs and Emergencies

1.7.1 Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by City.

1.7.2 Costs due to emergencies incurred in taking action to prevent threatened damage, injury or

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loss in case of an emergency affecting the safety of persons and property.

1.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by Contractor, Subcontractors or Suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of Contractor and only to the extent that the cost of repair or correction is not recoverable by Contractor from insurance, sureties, Subcontractors or Suppliers.

1.8 Related Party Transactions

1.8.1 The term "related party" will mean a parent, subsidiary, affiliate or other entity having common ownership or management with Contractor; any entity in which any stockholder in, or management employee of, Contractor owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of Contractor. The term "related party" includes any member of the immediate family of any person identified above.

1.8.2 If any of the costs to be reimbursed arise from a transaction between Contractor and a related party, Contractor must notify City in writing of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If City, after such notification, authorizes in writing the proposed transaction, then the cost incurred will be included as a cost to be reimbursed, and Contractor must procure the Work, equipment, goods or service from the related party, as a Subcontractor. If City fails to authorize the transaction, Contractor must procure the Work, equipment, goods or service from some person or entity other than a related party.

SECTION 2 – COSTS NOT TO BE REIMBURSED

2.1 The Cost of Work must not include:

2.1.1 Salaries and other compensation of Contractor's personnel stationed at Contractor's principal office or offices other than the site office, except as specifically provided in Subparagraphs 1.2.2 and 1.2.3.

2.1.2 Expenses of Contractors' principal office and offices other than the site office.

2.1.3 Overhead and general expenses, except as may be expressly included in Section 1.

2.1.3.1 Costs of Contractor's home office computer services or other outside computer processing services will be considered overhead and general expense. Accordingly, Contractor should not plan to perform any such computer related services or alternatives at the field office when such services or functions can be performed at Contractor's home or branch offices, or other outside service locations.

2.1.4 Contractor's capital expenses, including interest on Contractor's capital employed for the Work.

2.1.5 Rental costs of machinery and equipment, except as specifically provided in subparagraph 1.5.2.

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2.1.6 Except as provided in Subparagraph 1.7.3 of the Agreement, costs due to the negligence or failure to fulfill a specific responsibility of Contractor, Subcontractors and Suppliers or anyone directly or indirectly employed by any of them or for whose acts of them may be liable.

2.1.7 Any cost not specifically and expressly described in Section 1.

2.1.8 Costs, other than costs included in Change Orders approved by City that would cause the GMP to be exceeded.

SECTION 3 – DISCOUNTS, REBATES, REFUNDS AND SAVINGS

3.1 Cash discounts obtained on payments made by Contractor will accrue to City if (1) before making the payment, Contractor included them in an Application for Payment and received payment therefore from City, or (2) City has deposited funds with Contractor with which to make payments; otherwise, cash discounts will accrue to Contractor. Trade discounts, rebates, refunds and amounts received from sales or surplus materials and equipment will accrue to City, and Contractor must make provisions so that they can be secured.

3.1.1 Cost of the Work will be credited with all insurance policy discounts, performance and payment bond rebates or refunds, refunds or return premiums from any Subcontractor default insurance, refunds or rebates from any Contractor controlled insurance programs applicable to the Project, merchandise rebates of any nature, refunds of any nature, insurance dividends; and a portion of any volume rebates or free material credits earned with purchase of material or other goods and services charged to the job.

3.1.2 "Cash" discounts which may accrue to Contractor will be limited to a maximum of 1.5% of invoice cost. Any portion of "Cash" discounts greater than 1.5% will automatically accrue to City if Contractor is eligible to take advantage of the discounts.

3.2 Amounts that accrue to City in accordance with the provisions of Paragraph 3.1 will be credited to City as a deduction from the Cost of the Work.

3.3 Any and all savings on the GMP, or any separately guaranteed items comprising the GMP, will belong to City, subject to any express right in the Agreement for Contractor to share in savings. Savings are subject to City's right to audit, and may be audited separately.

SECTION 4 – GENERAL CONDITIONS COSTS

4.1 General Conditions Costs may include, but are not limited to, the following types of costs incurred by Contractor during construction of the Work to the extent they are reimbursable Costs of the Work as delineated above: payroll costs for Work conducted at the site, payroll costs for the superintendent and full-time general foremen, payroll costs for management personnel resident and working on the site workers not included as direct labor costs engaged in support (e.g. loading/unloading, clean-up, etc.), administrative office personnel, costs of offices and temporary facilities including office materials, office supplies, office equipment, minor expenses, utilities, fuel, sanitary facilities and telephone services at the site, costs of liability insurance premiums not included in labor burdens for direct labor

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costs, costs of bond premiums, costs of consultants not in the direct employ of Contractor or Subcontractors, fees for permits and licenses.

4.2 General Conditions Costs may be paid on a percentage of the Agreement Price or on a lump/stipulate sum basis as set forth in the Agreement. All costs included in the General Conditions Costs will not be separately invoiced to or paid by City.

4.3 The total amount of General Conditions Costs for the Work may be divided by the number of days allowed for performance of the Work, to determine a fixed daily rate for General Conditions Costs that may be used in computing the General Conditions Costs allocated to any period of time, or for any adjustments in the General Conditions Costs agreed to in writing by City.

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LANDSCAPE ESTABLISHMENT PERIOD

Section 1 – Description and General

Contractor is in direct control of work performed under the Landscape Establishment Period. If work is subcontracted, a representative of the Contractor will be present at the site of the work for all hours that the subcontractor works. Subcontracting of Landscape Establishment work will be permitted for weed eradication with herbicides, because of special licensing. A licensed temporary service may be used to supply labor to Contractor if Contractor has received approval from City Representatives. Contractor will submit the required subcontract documentation.

Contractor must provide adequate personnel to accomplish the required maintenance of the plant materials at intervals acceptable to City Representatives.

If not healthy at the end of the maintenance period, the maintenance must be continued until the plant material is approved by City.

1.1 Time and Schedule

Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will be per General Conditions Section 6.5.4.

1.2 Planted Stock and Seeding Establishment

1.2.1 Tree planting and staking must be per City of Chandler Standard Detail C-801.

1.2.2 All trees will stand erect on their own without stakes when brought to this site. If the tree cannot stand on its own when nursery stakes are removed, the tree will be removed and replaced.

1.3 Pre-Emergent Herbicide and Weed Control

1.3.1 Contractor will provide three applications of an approved pre-emergent herbicide on all unpaved areas of the project, as directed by City Representatives, to control weed growth in all areas of the project. The number of applications may be increased as directed by the City Representative, and at no additional cost to City, if the City Representative deems additional applications are required to control weed growth.

1.3.2 Application sequence will be approved in advance by City. The first application of pre-emergent will be completed prior to the application of Decomposed Granite and will be included with the cost of the Decomposed Granite as specified and part of the Construction Phase portion of work. The second application of pre-emergent will be completed after installation of the Decomposed Granit and no later than half-way through the Landscape Establishment Period. The third and final application of pre-emergent will be applied 15 days prior to completion of the Landscape Establishment portion of the project. The second and third pre-emergent applications will be included with the cost of Landscape Establishment. Watering will be completed in accordance with the manufacturer's recommendations, as included and as related to each application.

1.3.3 The pre-emergent herbicide will be applied in accordance with the Technical Specifications and the recommendations of the pre-emergent herbicide manufacturer, as approved by City Representatives.

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1.3.4 The control of weeds will be accomplished by the use of herbicides. Manual removal of weeds will be required, after herbicides have taken affect.

1.3.5 Contractor is responsible for the removal and disposal of all trash and debris that during the Landscape Establishment Period. Contractor will keep the project in a neat and orderly manner during the duration of the Landscape Establishment Period.

1.4 Water

The water used during Landscape Establishment to properly maintain the plant material will be furnished by City, at designated sources from within the project limits, at no charge to Contractor. Contractor will be responsible for all equipment, materials and labor necessary to load, transport and unload water for watering purposes.

1.5 Plant Material Replacements

The plant material replacement will be considered as included in the work for Landscape Establishment, and will be made at no charge to the City.

1.5.1 Shrub and Plant Replacement - During the second half of the Landscaping Establishment period, Contractor will provide, where required, plant replacements as follows:

Original Size	**Replacement Size**
1 gallon	5 gallon
5 gallon	15 gallon
15 gallon	24-inch box
36-inch box	48-inch box

1.5.2 Tree Replacement – During the second half of the Landscape Establishment Period, Contractor will provide plant material replacements for existing plants that die as follows:

Existing Plant Material Sizes	**Replacement Size**
Trees:	
2-inch Caliper	24-inch box
4-inch Caliper	36-inch box
6-inch Caliper and greater	54-inch box
Shrubs:	
All Existing Shrubs	15 gallon

1.6 Measurement and Payment

See Technical Specifications for Measurement Payment provisions.

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CONSTRUCTION ESCROW AGREEMENT
(In Lieu of Retention)
City of Chandler Project No.

THIS AGREEMENT ("Escrow Agreement") is made as of Date by and between the City of Chandler, an Arizona municipal corporation ("Owner") and Contractor Name, an Business Org Type ("Contractor") and Bank Name, a national banking association ("Escrow Agent").

RECITALS

A. Owner and Contractor entered into a Construction Contract dated Agreement Effective Date ("Construction Contract") for the City of Chandler Project Name Construction Project No. Project # ("Project").

B. Arizona Revised Statutes ("A.R.S.") § 34-221 requires a 10% retention of progress payments to ensure Contractor's performance.

C. Contractor has requested to deposit substitute securities in lieu of retention, and Owner has agreed, subject to the terms of this Escrow Agreement.

AGREEMENT

1. Deposit of Securities.

1.1. Contractor will deposit with Escrow Agent concurrently with the submission of a payment request qualified securities (as defined in A.R.S. § 34-221(C)(5)) ("Securities") in an amount at least equal to the required retention percentage of the payment request. These Securities must be accompanied with an assignment of securities in the same amount in the form attached as Exhibit "A" (collectively "Escrowed Funds"). The Escrowed Funds will be held in a dedicated account for the benefit of Owner.

1.2. Each month Bank will furnish Contractor a statement that shows the Escrowed Funds transactions and current balance as of the last day of the preceding month. Contractor must include this monthly statement with Contractor's payment request submitted to City.

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2. Owner's Sole Right to Release Escrowed Funds.

2.1. Unilateral Release: Notwithstanding any other provision, Escrow Agent is authorized to release any portion of the Escrowed Funds to Owner upon receipt of a written demand signed by the Owner's representative, certifying that the Contractor has failed to fulfill contractual obligations, or is in breach, or that a dispute exists regarding the Project. **No consent or signature from the Contractor is required.**

2.2. Final Completion Release: The Escrowed Funds will only be released to Contractor upon final completion, acceptance of the work by the Owner, and submission of all final Project documents, as determined solely by the Owner.

3. Deposit of Additional Securities. If the market value of the Escrowed Funds falls below 10% of all approved or pending Project payment requests, the Contractor will, within 10 days of notice, deposit additional Securities to restore the 10% value. Contractor's failure to do so constitutes a material breach of the Construction Contract.

4. Interest Earnings. Interest earned on the Escrowed Funds may be paid to Contractor as provided in A.R.S. § 34-221. If Escrowed Funds are released to the Owner due to Contractor's breach and such Escrowed Funds are insufficient to hold Owner harmless for Contractor's breach, any and all accrued interest may also be released to Owner to satisfy any deficiency.

5. Escrow Fees. All fees, costs, and expenses of the Escrow Agent to establish and maintain the escrow account will be paid exclusively by Contractor.

6. Disputed Work/Withholding. In the event of a dispute between Owner and Contractor, the Owner may direct the Escrow Agent to withhold a maximum of 150% of the estimated cost to remedy defective work or settle third-party claims.

7. Governing Law. This Escrow Agreement will be governed by the laws of the State of Arizona.

8. Construction Contract; Conflict in Terms. The terms and conditions of the Construction Contract are incorporated into and made a part of this Escrow Agreement by this reference. If there is a conflict or ambiguity created by or that arises between the Construction Contract and this Escrow Agreement, the terms and conditions of the Construction Contract prevail and control.

Remainder of page left blank intentionally

DATED THIS _____ day of _____, 2026.

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"CONTRACTOR"
CONTRACTOR NAME

_____
Signature Date

_____
Print Name

_____
Title

_____
Signer Email Address

"ESCROW AGENT"
BANK NAME

_____
Signature

_____
Print Name

_____
Title

_____
Signer Email Address

"CITY"
City of Chandler, Arizona

_____
CIP City Engineer

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk Seal

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Exhibit "A"
ASSIGNMENT OF SECURITIES IN LIEU OF TEN PERCENT RETENTION
SECURITY DESCRIPTION: Escrow Account
ACCOUNT NO.: Escrow Account #

Archer Western Construction, LLC, an Arizona corporation, hereinafter referred to as "Assignor", having been awarded a construction contract in connection with City of Chandler's Construction Project No. Project #, and desiring to take advantage of A.R.S. Sec. 34-221 and assign certain securities in lieu of ten percent (10%) retention of the contract proceeds as required by statute, hereby assigns to the CITY OF CHANDLER, an Arizona municipal corporation, hereinafter referred to as "Assignee", all of the Assignor's right, title and interest in and to the above identified securities up to the sum of $_____.

This assignment shall remain in force and effect until the construction project identified above is completed and accepted by Assignee, at which time Assignee shall release all of its interest in the assignment.

"ASSIGNOR"
Contractor Name

By: _____

Title: _____

RECEIPT AND WAIVER

The undersigned financial institution hereby acknowledges to the CITY OF CHANDLER, an Arizona municipal corporation, that it has received written notice from Assignor Contractor Name, a Business Org Type, of the assignment to the CITY OF CHANDLER of the above-identified securities in the amount of $Dollar Amount, held in Account No. Escrow Account #. The undersigned financial institution further hereby waives any and all rights or powers of set-off of said financial institutions against the CITY OF CHANDLER, in relation to the above-identified securities. The undersigned financial institution further warrants to the CITY OF CHANDLER that it has on deposit the securities described in the foregoing assignment and in the amount assigned.

"Financial Institution"
Bank Name

By: _____

Title: _____

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EXHIBIT C

TECHNICAL SPECIFICATIONS

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TECHNICAL SPECIFICATIONS
CITY OF CHANDLER
HUNT HIGHWAY WELL
CITY PROJECT NO.: WW2405.101

PREPARED FOR:

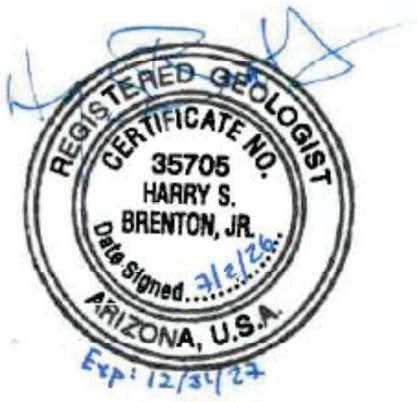
City of Chandler
Public Works & Utilities Department
Attn: Project Manager
975 E Armstrong Way
Chandler, AZ 85286

PREPARED BY:

Matrix New World Engineering, Land Surveying and Landscape Architecture, PC
3033 North 44 Street, Ste 270
Phoenix, AZ 85018

DATE:

July 2, 2026



MATRIX PROJECT NO.:

25-0735

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

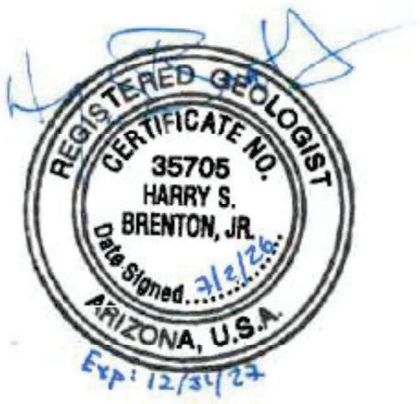
TECHNICAL SPECIFICATIONS
CITY OF CHANDLER
HUNT HIGHWAY WELL
CITY PROJECT NO.: WW2405.101

PREPARED FOR:

City of Chandler
Public Works & Utilities Department
Attn: Project Manager
975 E Armstrong Way
Chandler, AZ 85286

DATE:

July 2, 2026



July 2, 2026

Harry S. Brenton, RG — Date
Vice President - Hydrogeological Services
Matrix New World Engineering

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FIGURE NO.	DESCRIPTION
1	Proposed Hunt Highway Well Location
2	Preliminary Well Design

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APPENDIX NO.	DESCRIPTION
A	Local Well Contractor Reports and Logs
B	Contractor Submittal List

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1.0 INTRODUCTION

1.1 WELL LOCATION

The work to be accomplished under the following specifications consists of drilling and completion of one production well for the City of Chandler to a depth of approximately 1,500 feet below ground surface. The proposed well (Well), is located at the northeast corner of Hunt Highway and Cooper Road, Chandler, Arizona. The cadastral location for Hunt Highway is in the East Salt River Valley Sub-basin of the Phoenix AMA in the SW ¼ of the SW ¼ of the SW ¼ of Section 36, Township 2 South, Range 5 East [D(02-05)36 CCC], of the Gila and Salt River Baseline and Meridian. A map of the proposed well location is presented in **Figure 1**.

Groundwater levels in the area are approximately 87 feet below ground surface (ft bgs). The target depth of the well of 1,500 ft bgs will be within coarse grained dominant deposits associated with the Lower Alluvial Unit aquifer. It is also possible that bedrock (Pinal Schist) may be encountered prior to reaching the target depth. Representative well drillers lithologic logs in the area that have been drilled to a depth of approximately 800 ft bgs are presented in **Appendix A**. A preliminary well design is presented in **Figure 2**.

1.2 DEFINITIONS

Throughout this specification, the term OWNER shall be understood to represent City of Chandler. The term CONSULTANT shall be understood to represent Matrix New World Engineering, Land Surveying and Landscape Architecture, PC. The CONTRACTOR shall be the person, firm, or corporation with whom the OWNER will sign an agreement setting forth the terms and conditions for the work to be performed, as specified herein. The term SUBCONTRACTOR will apply to any person, firm, or corporation with whom the CONTRACTOR signs a secondary agreement for a portion of the scope of work.

1.3 SCOPE OF WORK

The installation of one new well (Hunt Highway Well) as specified herein consists of the CONTRACTOR drilling a borehole to the specified depth using the reverse circulation rotary drilling method. A minimum 16-inch diameter pilot borehole will initially be drilled. Lithologic cutting samples and geophysical logging will be conducted in the pilot borehole as specified herein. Based on results of the lithologic and geophysical logs, a final well design will be developed by the CONSULTANT within 7 business days (excluding weekends) following completion of the pilot borehole testing program. The CONTRACTOR will then ream the borehole to the specified diameter and complete the water production well pursuant to the final well design. The OWNER is requesting bid sheets based on one well design, with 18-inch

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diameter well casing. The well design, for bidding purposes, is presented in **Figure 2**. Prior to mobilization, the OWNER will make a decision regarding the final well diameter. The scope of work presented herein also includes post-well construction aquifer testing.

The OWNER reserves the right to drill beyond the depth specified, or to stop at a lesser depth, depending on subsurface conditions. For any additional drilling beyond the contracted footage that is directed by the CONSULTANT and OWNER, the CONTRACTOR will be compensated on a lineal foot basis from the Owner's Allowance. Any footage under the contracted amount will be credited back to the project at the lineal foot unit price. The dimensions of the well may also be modified based on information obtained during drilling and testing of the pilot hole. Borehole drilling, pilot hole testing, well installation, well development, well completion, and aquifer testing by the CONTRACTOR shall be conducted under the oversight of the CONSULTANT and OWNER. A list of applicable CONTRACTOR submittals is presented in **Appendix B**. This Submittal List is provided for information only and is not intended as an exhaustive list. The CONTRACTOR should refer to the Technical Specifications presented herein, for detailed submittal requirements for this project. The CONSULTANT or OWNER makes no guarantee or warrantee that this list includes all requirements placed on the CONTRACTOR.

1.4 PERFORMANCE OF WORK

1.4.1 Contractor Qualifications

The CONTRACTOR shall have no less than five years of experience using the reverse circulation rotary drilling method under similar aquifer conditions (Arizona's Basin and Range physiographic province and shall have recent experience in zonal sampling, falling head testing, and installing large capacity potable water production wells having similar dimensions. The CONTRACTOR shall assign a foreman to oversee all work required by this specification. The CONTRACTOR shall provide with its bid submittal a resume of the foreman, including years of experience using the reverse circulation rotary drilling method in the installation of high-capacity production wells.

The CONTRACTOR shall hold a valid ADWR Well Drilling License in the reverse circulation category, a Register of Contractors License type A, A-4, A-16, or L-53, and all other licenses and permits required by federal, state, city or municipal rules and regulations.

1.4.2 Operations

The CONTRACTOR shall employ only competent employees for the execution of work and shall maintain at least a three-person crew and a minimum of two employees on site at all times while the drilling rig is in operation. All operations shall be performed under the direct and personal supervision of an Arizona-

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licensed well driller with a Registrar of Contractors License type A, A-4, A-16, or L-53. The CONTRACTOR shall construct the production well in accordance with the Rules and Regulations of ADWR, Article 8, Well Construction and Licensing of Well Drilling, as amended June 18, 1990. Well construction shall also comply with the guidelines of the Arizona Department of Health Services (ADHS) Engineering Bulletin No. 10 (1978), and all other applicable state, county, or local regulations.

Should the well be lost due to any fault on the part of the CONTRACTOR, the well shall be abandoned at no cost to the OWNER, in accordance with ADWR Article 8, Rule R12-15-816, and a replacement well shall be constructed in the immediate area. The replacement well location will be selected by the CONSULTANT. Payment for the replacement well will begin once the depth and status at which the original well was terminated has been reached per the bid tab. The replacement well shall be completed in accordance with all the terms and conditions stated herein. However, if the inability to complete the well is not due to any fault of the CONTRACTOR, the CONSULTANT may designate a replacement well location and the OWNER shall provide reasonable reimbursement.

Rejection of any materials, work, or equipment by the CONSULTANT is at the CONTRACTOR’s expense, and at no cost to the OWNER. If a work delay is caused by the CONTRACTOR failing to comply with any item of these specifications, the CONTRACTOR will bear the burden of additional expenses, including any additional CONSULTANT charges assessed to the OWNER as a direct result of the delay.

1.4.3 Confidentiality

The CONTRACTOR shall not disclose any information relating to this project or the well site to anyone other than the OWNER or CONSULTANT without written permission from the OWNER, except as may be required by law. At all times during the conduct of the CONTRACTOR'S services, the CONTRACTOR and its employees and agents shall treat the work conducted by the CONTRACTOR and its SUBCONTRACTORS and the results thereof as confidential and proprietary to the OWNER. Photographs may be taken throughout the project by the CONSULTANT and OWNER.

Any questions regarding the purpose or scope of work directed to the CONTRACTOR from individuals or entities other than representatives of the OWNER or CONSULTANT while work is being conducted for this project should be directed by the CONTRACTOR to the CONSULTANT or OWNER.

The CONTRACTOR shall inform its employees of this provision and shall obtain non-disclosure agreements from all SUBCONTRACTORS who will be involved in the performance of any of the work and provide the OWNER with copies of the executed non-disclosure agreements. This provision shall survive the termination of the contracted work tasks.

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1.4.4 Health and Safety

The CONTRACTOR is responsible for assuring its personnel and all SUBCONTRACTOR personnel conform to all state and federal health and safety rules and regulations. The CONTRACTOR must provide a Site Safety Plan for this project in accordance with applicable Occupational Safety and Health Administration (OSHA) requirements. The OWNER and CONSULTANT will not approve the Site Safety Plan however, the CONTRACTOR must assure all personnel and SUBCONTRACTOR personnel at the well site are thoroughly familiar with the Site Safety Plan for the proposed work. The Site Safety Plan must be provided to the CONSULTANT and OWNER by the CONTRACTOR at least 5 days prior to mobilization to the well site. A copy of the Site Safety Plan must be on site and easily accessible at all times. In addition, CONTRACTOR personnel are required to have been trained in the use of any personal protective equipment (PPE) required by the Site Safety Plan. The CONTRACTOR shall meet the requirements of the Site Safety Plan at its own cost. The CONTRACTOR is solely responsible for site safety.

The CONTRACTOR shall have hearing protection available for authorized visitors (OWNER, CONSULTANT).

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2.0 PROTECTION OF SITE

2.1 GENERAL

The CONTRACTOR shall take all necessary precautions to preserve the well site, as nearly as practical, in its present condition. The CONTRACTOR shall be responsible for replacing any damaged items. All litter and debris will be cleaned up daily and placed in containers for offsite disposal by the CONTRACTOR in a legal manner.

A plastic tarp shall be placed beneath the drilling rig during mobilization to protect the site against oil or hydraulic fluid spills or leaks and will remain beneath the rig until demobilization. All significant spills or leaks must be addressed at the time of the spill/leak. Any open sub-surface pits must be barricaded to help prevent accidental injury of employees and/or onsite visitors.

Water pumped from the well during drilling, sampling, and development operations shall be contained onsite in an above ground tank provided by the CONTRACTOR at the well site, where it can be contained without damage to the property, contamination of other wells or waterways, or creation of a nuisance. Excess clean water, free of suspended sediment developed during these operations, as approved by the CONSULTANT and OWNER, may be pumped from the pit/storage tank to the location specified in Section 7.6. Cuttings generated during drilling operations will need to be disposed of offsite. All drilling fluids and mud, if used, will need to be removed from the site at the CONTRACTOR's expense. After completion of the work, the CONTRACTOR shall remove all debris, waste, trash, and unused materials or supplies; and shall remove all signs of temporary construction facilities such as temporary work areas, temporary structures, stockpiles of waste materials; and shall restore the site, as nearly as possible, to its original condition and satisfaction of the OWNER.

The CONTRACTOR must be aware of the potential for theft and vandalism and take appropriate measures as they see fit and at their own expense, such as a fenced enclosure.

2.2 DUST CONTROL

Adequate access to the proposed well site is available. The CONTRACTOR shall be responsible for maintaining access and dust control. The CONTRACTOR shall obtain and maintain a dust control permit, if required, throughout the project and a copy of the dust control permit must be provided to the OWNER and CONSULTANT and be kept onsite. The CONTRACTOR must maintain the access road in good condition throughout the drilling program. The CONTRACTOR shall maintain a trackout control device and cleanup any trackout that occurs. Any trackout 25 cumulative feet or greater must be cleaned up

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immediately. If delays in drilling or well completion occur as a result of failure to maintain the property and well site, the CONTRACTOR shall bear the additional expense.

2.3 NOISE CONTROL

It is the CONTRACTOR'S responsibility to meet all ordinances regarding noise and noise control during all drilling, testing, well installation, and development operations. Sound barricades will be required at the well site. The sound barricades shall be a minimum of 24 feet tall and must be approved by the CONSULTANT or OWNER prior to commencement of work by the CONTRACTOR. For bidding purposes, approximately 680 linear feet of sound barricades are anticipated on the north, south, east, and west sides of the drill site. The noise control must be in accordance with the ASTM International (ASTM) Standard E 90-90, Maricopa County, and City of Chandler rules and regulations.

Support posts for the sound barricades shall be sufficiently rigid and strong to withstand normal weather conditions and acts of nature. The proposed location and depth of borings necessary for support posts shall require approval by the CONSULTANT and OWNER. The CONTRACTOR will be responsible for locating all underground utilities and proper backfilling and compaction of any excavations required by this task.

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3.0 UTILITIES

3.1 WATER

The CONTRACTOR will be responsible for obtaining or hauling potable water to the well site, and will also be responsible for any other costs, connections or ancillary equipment required for the use of the water at the site. It is anticipated that a nearby hydrant source will be made available from the OWNER. The CONTRACTOR will apply and fill out a water meter permit application for hydrant use. The water permit application will require a refundable fee. The OWNER will also provide a discharge location to the City sewer system along Hunt Highway for disposal of clean/sediment free water.

3.2 ELECTRICITY

The CONTRACTOR shall provide, at its own expense, all power required for its operations under the contract.

3.3 UNDERGROUND UTILITIES

Location of all subsurface utilities within the perimeter of the work area shall be the responsibility of the CONTRACTOR. Utility damage, caused by negligent actions of the CONTRACTOR, shall be repaired at the CONTRACTOR'S expense in accordance with the Utility specifications. The CONTRACTOR shall notify Arizona 811 (formerly known as Arizona Blue Stake) prior to drilling and confirm the absence of any underground utilities. For all utilities on private property, the CONTRACTOR is responsible for hiring a private locater to mark all utilities not identified by the individual utility companies.

3.4 SANITARY FACILITIES

The CONTRACTOR will be required to have at the drill site a portable "chemical" toilet for personnel use.

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4.0 EQUIPMENT

The CONTRACTOR shall furnish and maintain in safe and efficient working conditions all equipment necessary to perform the specified work, including a drilling rig or rigs capable of performing the specified operations to the specified depth; and, pumping, testing, sampling, and auxiliary equipment as specified or required to complete the described tasks. The drilling rig, pumping equipment, and auxiliary equipment used for this project shall be well maintained and shall meet OSHA standards. All high-pressure hoses shall be equipped with a safety chain for protection in the event of hose failure. If compressed air is introduced into the well during drilling or well development, the air from the compressor must be treated by passage through a high-volume carbon or coalescing filter to remove organic contaminants (e.g., compressor lubrication oil). The drilling rig shall have a derrick rating and hook load capacity capable of lifting no less than 120,000 pounds or 1.5 times the total casing weight, whichever is greater. CONTRACTOR will be required to have, for air lifting purposes, a compressor capable of supplying a minimum of 750 cubic feet per minute (cfm) at 350 pounds per square inch (psi). Air lifting will require a minimum of a 6-inch inside diameter eductor pipe with a minimum 1.5-inch inside diameter airline.

Prior to the start of drilling, the CONTRACTOR shall decontaminate the drill rig and downhole tools by steam cleaning. The method and extent of steam cleaning must be approved by the CONSULTANT. The CONTRACTOR will be required to provide a letter of certification to the CONSULTANT of the decontamination of the equipment, prior to utilization. The CONTRACTOR may certify, in writing, the decontamination of critical (downhole) pieces of drilling equipment in lieu of actual steam cleaning, provided the downhole pieces of drilling equipment have not been in contact with any potential contaminants, hazardous or toxic materials since the last decontamination. All necessary steam cleaning will be conducted at the CONTRACTOR'S expense.

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5.0 REPORTS, LOGS, AND RECORDS

5.1 GENERAL

The CONTRACTOR shall keep accurate and legible logs as described below. The forms for penetration rate log, daily CONTRACTOR's report, and drilling fluid control log must be approved by the CONSULTANT. The CONSULTANT and OWNER will visit the site periodically to log cuttings and collect field notes regarding the drilling process to ensure that drilling operations are proceeding in accordance with specifications. During well casing, screen construction, and annular material emplacement, the CONSULTANT will be onsite full-time to document all well construction activities.

5.2 PENETRATION RATE LOG

During drilling of the borehole, a time log shall be kept showing the actual penetration time required to drill each foot of the borehole using a Geolograph or equivalent. The types of bits used in each interval of the borehole shall be noted in this log and whether designed for soft, medium, or hard formations, including approximate weight of the drill string and weight on the bit, as measured by the weight indicator on the drill rig, in addition to the rotation speed of the bit during drilling of the various types of formation in the various sections of the borehole. This log shall be available for review by the CONSULTANT throughout the drilling program and shall be delivered to the CONSULTANT upon completion of drilling.

5.3 DAILY CONTRACTOR'S REPORT

During drilling and construction of the well, a detailed CONTRACTOR's report shall be maintained and provided daily to the CONSULTANT at the well site. The daily drillers report forms must be International Association of Drilling (IADC) or equal approved by the CONSULTANT. The report shall give a complete description of all formations encountered including number of feet drilled, number of hours on the job, shutdown due to breakdown, type of bit used, weight of the collars included in the drill string, weight on the bit, amount and type of drilling fluids used, plumbness test results at each 100-foot interval, length and type of casing set, and other pertinent data as may be requested by the CONSULTANT. CONTRACTOR personnel will submit the log to the CONSULTANT for approval daily.

5.4 CONTRACTOR'S LOGS

During drilling of the pilot borehole, the CONTRACTOR shall prepare a detailed Well Drillers Lithologic Log in compliance with ADWR requirements. The lithologic log shall include the reference point for all depth measurements, a generalized description of each formation encountered, the depth at which each formation is encountered, and the thickness of each formation. The lithologic log prepared by the

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CONSULTANT will be made available to the CONTRACTOR to assist in preparation of the Well Drillers Log. A copy of the CONTRACTOR's lithologic log shall be furnished to the CONSULTANT and OWNER.

5.5 DRILLING FLUID RECORD

During drilling of the borehole, a log of drilling fluid properties shall be maintained. The drilling fluid record will be recorded on an American Petroleum Institute (API)-approved form and will document all items listed in Section 6.1. The drilling fluid log shall be available for review by the CONSULTANT and OWNER throughout the course of drilling and shall be delivered to the CONSULTANT upon completion of each day's work activities.

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6.0 DRILLING FLUID CONTROL PROGRAM

6.1 GENERAL REQUIREMENTS

The CONTRACTOR shall maintain current records at the site at all times to show: 1) the time, depth, and results of all drilling fluid tests; 2) all materials added to the system, i.e., kind, amount, time, and depth; and 3) variances or modifications from the agreed upon fluid program such as time, depth, reason, and authorization. The CONTRACTOR is responsible for maintaining an adequate supply of drilling fluid additives (including lost circulation material) at the drilling site, and for the removal of all drilling fluids and additives from the borehole during development of the well.

6.2 DRILLING FLUID CONTROL PLAN

Drilling fluid tests will be required during periods when any drilling fluid additives are being circulated in the borehole. Physical and chemical properties of the drilling fluid are to be measured in accordance with the procedures of the API Standard RP 13B "Standard Procedures for Testing Drilling Fluids". Samples tested are those collected at the rig pump discharge line, with care taken to assure a true and representative sample.

Drilling fluid tests shall be conducted at a minimum of: 1) every 24 circulating-hours, 2) when significant changes to the drilling fluid are made, 3) whenever conditions appear to have changed or when problems arise, or 4) at the request of the CONSULTANT. A Marsh-type viscosity funnel and a mud scale will be available at the well site during all drilling operations, and upon request, will be made available to the CONSULTANT.

The CONTRACTOR shall provide a drilling fluid control plan to the CONSULTANT 48 hours prior to drilling. The plan will outline specific drilling fluids the CONTRACTOR plans to use, how anticipated changes in drilling conditions will affect the drilling fluid control plan, fluid testing procedures, and equipment that will be used. The drilling fluid control plan must be approved by the CONSULTANT.

6.3 SPECIFIC CONDITIONS

During drilling of the borehole and installation of the well, extra care will be required to minimize chemical and biological disturbance of the vadose zone and saturated alluvial matrix. The use of organic drilling fluid materials (such as starch, guar, or cottonseed hulls) will not be accepted for drilling. Material Safety Data Sheets (MSDS) from the manufacturer for all drilling fluid additives must be provided to the CONSULTANT for review prior to their use. The CONTRACTOR shall be responsible for maintaining the quality of the drilling fluid to assure:

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1. Protection of water bearing and potential water bearing formations exposed to the borehole
2. Collection of representative samples of the formation material
3. Maximum development capability and optimum potential yield of the completed well
4. Mitigation of formation-caused drilling problems (e.g., heaving sands, swelling clays, lost circulation)
5. Protection of the integrity of the boring during drilling operations
6. Ability to conduct thorough and accurate geophysical logging of the borehole.

6.4 LOST CIRCULATION

During drilling of the production well, if there is no return of circulated drilling fluid for a period of at least two continuous hours, the OWNER will compensate the CONTRACTOR for the period of drilling under lost circulation conditions at the CONTRACTOR'S hourly rate. Also, the OWNER will provide compensation including the CONTRACTOR'S percent markup (not to exceed 5%) for all drilling fluid materials and additives used during the period of lost circulation. The conditions of this Section shall apply from the beginning of the time period of total lost circulation, with no returns at the land surface, and shall continue only until such time as drilling fluid circulation is regained, with full or partial returns of drilling fluid at the land surface. After an initial lost circulation event has occurred, should circulation be lost again, the conditions of this paragraph will go into effect immediately, and continue until such time as drilling fluid circulation is regained with full or partial returns of drilling fluid at the land surface.

The CONTRACTOR shall notify the CONSULTANT any time the CONTRACTOR experiences lost circulation and intends to invoke the lost circulation clause. Notification must be within the hour of observed lost circulation, and a written field order to continue shall be given to the CONTRACTOR, or no compensation for lost circulation will be made.

6.5 LOW PENETRATION RATE

During drilling or reaming operations, if a formation is encountered that results in a penetration rate of less than 3.0 feet per hour for a period of at least two continuous hours, while at least 1,500 pounds per diameter inch is applied to the drill bit, then the OWNER will compensate the CONTRACTOR for the period of Low Penetration Rate Conditions at the CONTRACTOR'S hourly rate, in lieu of footage compensation. The OWNER will also provide compensation at a rate of cost, plus 5 percent markup, to the CONTRACTOR for all drilling bits used during Low Penetration Rate Conditions. During Low Penetration Rate Conditions, the CONTRACTOR will credit the prorated values of used drilling bits to the OWNER.

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The CONTRACTOR is responsible for notifying the CONSULTANT immediately upon the occurrence of Low Penetration Rate Conditions, and to document the times, quantities, and circumstances of Low Penetration Rate Conditions during each occurrence. Failure of the CONTRACTOR to promptly notify the CONSULTANT of Low Penetration Rate Conditions will void the CONTRACTOR'S opportunity to implement this clause. The conditions of this Section shall apply from the beginning of the time period of Low Penetration Rate Conditions (less than 3.0 feet per hour) and shall continue only until such time as drilling is resumed at a rate of 3.0 feet per hour or greater.

Upon invocation of this Section, the CONTRACTOR will trip the drill string out of the hole for inspection of the drill bit by the CONSULTANT to check for excessive wear and that the correct bit type is being used for the formation being drilled. The conditions of this Section shall apply only if the CONSULTANT'S inspection of the drilling bit does not indicate excessive bit wear that would substantially decrease the penetration rate. In the event that the drill bit inspection indicates that this Section applies, the time expended for drilling bit removal will be paid by the OWNER under the conditions of this Section. If the CONSULTANT is not notified during the initial 2-hour period of low penetration, or if bit inspection reveals excessive wear, the provisions of this clause will not be invoked.

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7.0 WELL DRILLING AND INSTALLATION

7.1 GENERAL DRILLING METHODS

The drilling of the boring will be conducted by the reverse circulation rotary drilling method. The borehole diameter of these specifications should be considered the minimum allowable. The CONTRACTOR shall be responsible for designing and controlling a drilling program that conforms to this specification.

7.2 SURFACE CASING INSTALLATION

7.2.1 Drilling

The surface casing borehole for the Hunt Highway well shall be drilled to a minimum 42-inch diameter and to a depth of no less than 59 ft bgs, to allow for future grading of the site. The CONSULTANT reserves the right to direct drilling of the surface casing borehole to a greater depth depending on geologic formations and other subsurface conditions. The surface casing boring may be drilled using a rotary drilling method or by use of the bucket auger (solid stem auger) drilling method).

7.2.2 Materials

7.2.2.1 Casing

The surface casing for the Hunt Highway Well Site (**Figure 2**) shall be new and manufactured in accordance with ASTM Specification A53 Grade B low carbon steel. This casing shall have a 36-inch OD (outside diameter). The casing shall have a minimum 0.375-inch wall thickness. The minimum length of the surface casing shall be 60 feet, to allow for a minimum 1-foot stickup above land surface. The casing shall be factory assembled in no less than one 20-foot section and one 40-foot section.

Prior to surface casing installation, the CONTRACTOR shall submit certified test reports to the CONSULTANT to demonstrate compliance with the physical and chemical properties of the surface casing steel that are specified herein.

7.2.2.2 Cement Grout Seal

The surface casing cement grout seal material shall consist of a cement slurry containing 5.2 to 6.0 gallons of water per 94-pound sack of Portland cement. The Portland cement shall conform to ASTM Standard C150, Type II. The cement grout weight shall be measured prior to installation, as an indicator of the cement-water mix ratio. The cement grout slurry may contain sand or aggregate but shall not exceed 50 percent by volume of the cement. The aggregate used should be clean and washed sand and

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gravel with no organic matter and not coarser than 1-inch minus. Bentonite, as an additive, must be in powder form and shall not exceed five percent by weight of the cement, or cement and sand. Water added for bentonite shall not exceed 1.3 gallons per 1.88 pounds of bentonite (two percent by weight in cement). Accelerator additives, such as calcium chloride, shall not exceed two percent by weight of the cement. Sodium chloride, as an additive, shall not exceed two percent by weight of the water used to prepare the grout slurry. Water used for preparing the grout slurry shall be potable. The water source and the specific constituents of the cement grout must be approved by the CONSULTANT.

If the cement grout is not mixed onsite, the CONTRACTOR must provide the specific constituents of the cement grout to the CONSULTANT prior to placement of the grout. The cement grout slurry shall be mixed thoroughly and must be free of lumps to the satisfaction of the CONSULTANT. Cement grout that does not comply with this specification will be rejected at the CONTRACTOR'S expense.

7.2.3 Casing Installation

A design for the surface casing completion is shown in **Figure 2**. The CONTRACTOR will be required to work continuously, on a 24-hour per day basis, while installing and grouting the surface casing. Surface casing, conforming to Section 7.2.2.1, shall be furnished and placed from one foot above the ground surface to a minimum of 59 ft bgs.

Joints in the surface casing shall be field welded in accordance with applicable provisions of the American Water Works Association (AWWA) Standard C206 for welded joints. Alignment straps, or a CONSULTANT-approved equal may be used to align the well casing sections prior to welding. Prior to welding, the ends of each casing section shall be free of grease, paint, cement, dirt, oil, scale, slag, heavy rust, or any other foreign material. The ends of the casing sections shall be sufficiently oriented to assure 100% penetration of the weld, and adequate welding passes shall be made to provide for complete filling of the joined casing ends. Each welding pass shall be smooth and free of blisters, scale, bubbles, cracks, and imperfections that could contribute to a lack of strength of the overall welded joint. All well casing joints or overlaps shall be made water-tight to prevent degradation of the water supply by the migration of poor quality water. All welding shall be performed by an experienced welder.

7.2.4 Cement Grout Installation

The cement grout slurry conforming to the specification in Section 7.2.2.2 shall be placed from the base of the surface casing to the ground surface utilizing a positive action cement pump and tremie pipe. Care shall be taken to maintain an equalization of pressures to the extent necessary to prevent collapse of the surface casing. The grout seal shall completely fill the annular space and form a continuous seal between the surface casing and the wall of the borehole. The surface casing grout seal may be placed in two

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separate installations to completely extend the top of the seal to the ground surface. The surface casing shall be maintained centered in the hole before the occurrence of the initial set of the cement grout. The method of grout installation must be approved by the CONSULTANT. A minimum curing time for the surface casing grout seal is 12 hours.

7.3 WELL BORING

The well borehole shall be constructed by initially drilling a minimum 16-inch diameter pilot borehole to approximately 1,500 feet. Following analysis of data collected during drilling of the pilot borehole, downhole geophysical logging, and zonal sampling, the borehole will be reamed to a minimum of 28 inches to the specified depth. However, the CONSULTANT reserves the right to direct drilling of the well borehole to a greater or lesser depth, depending on geologic formations and other subsurface conditions. The well boring shall be drilled using the method described in Section 7.1, and in compliance with the drilling fluid testing and reporting requirements of Section 6.0. During drilling of the well boring, all operations shall be conducted on a 24-hour per day, 7-day per week basis. All drill cuttings and drilling mud will need to be containerized and disposed of off site at the CONTRACTORS expense.

7.3.1 Lithologic Samples

During drilling of the pilot hole, the CONTRACTOR shall collect and preserve for the CONSULTANT, two duplicate samples of the drill cuttings. The samples shall be collected at 10-foot intervals from the base of the surface borehole to the bottom of the pilot borehole. The CONTRACTOR shall provide an acceptable means of sampling the drilled cuttings at the discharge pipe. Catching the drilled cutting samples in sieves or strainers will not be allowed. A sump-type or baffle-type sample catching device shall be provided by the CONTRACTOR. Each cutting sample shall be carefully collected from the sampling point, and the sample catching device shall be cleaned of all cuttings after each sample is taken.

The samples shall be placed in labeled (well identification number, date, depth interval) sealable plastic bags furnished by the CONTRACTOR (two bags per sample interval). In addition, as an onsite visual record of the borehole stratigraphy, each sample shall be laid out in a sample storage area on a water-proof tarp or ground cloth for each sampled interval in descending order. The storage area and ground cloth must allow samples to be maintained in sequence and unmixed with surface material or other samples until they have been examined and logged by the CONSULTANT. The CONTRACTOR shall submit details of the proposed formation sampling method including the sampling equipment to be used to the CONSULTANT prior to the start of drilling. The sampling program must be approved by the CONSULTANT.

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7.3.2 Geophysical Logging

The CONTRACTOR will provide geophysical logging services following completion of the pilot borehole. Analyses to be conducted include caliper, spontaneous potential, single point resistivity, 64-inch, 16-inch, and 8-inch normal resistivity, dual guard, sonic, gamma ray, magnetic deviation, and temperature logs. Following completion of reaming out the borehole to a minimum of 28 inches, the CONTRACTOR will provide an additional caliper log analysis for determination of annulus volume.

7.3.3 Formation Water Quality Sampling

The CONSULTANT may select up to eight (8) intervals for water quality sampling in the borehole. Additional sampling intervals may be added by the CONSULTANT after reviewing the borehole data. The CONSULTANT shall approve the depths and number of zonal samples. Sampling shall begin with the deepest interval and continue up the borehole to the shallowest. The CONTRACTOR shall ensure the borehole is open from the land surface to the lowest depth in which the formation will be sampled.

The CONTRACTOR must submit with the bid, the formation water quality sampling qualifications of the driller that will conduct the sampling. This person must be approved by the CONSULTANT before formation sampling can be done.

The CONTRACTOR shall provide a 6-inch diameter sampling tool which will consist of a 20-foot-long section of perforated steel casing attached to a minimum 6-inch inside diameter (ID) eductor pipe with a minimum 1.5-inch ID airline. The lower end of the sampling tool shall be plugged with a steel plate welded across the open bottom. The CONTRACTOR will be required to have, for airlifting purposes, a compressor capable of supplying a minimum of 750 cfm and 125 psi.

During zonal development, water generated shall be conveyed to a baffled Adler Tank or similar to remove sediment prior to discharge to the City's Sewer system located on Hunt Highway. Specifics and details regarding the discharge are presented in Section 10.0. All drilling mud and sediments that settle out in the Adler tanks will need to be disposed of off-site at the CONTRACTORS expense.

Sample Zone Construction

Each of the sampling intervals will be constructed in the following manner. The CONTRACTOR shall install backfill as approved by the CONSULTANT in the borehole to be within 20 feet of the lowest interval to be sampled. A 10-foot bentonite seal should then be placed in the borehole bringing the material up to within 10 feet of the lowest interval to be sampled. The sampling tool is then positioned in the borehole adjacent to the interval that is to be sampled. An appropriate gravel pack as approved by the

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CONSULTANT is then placed within the borehole around the sampling tool and drill pipe to a depth of approximately 10 feet above the top of the sampling tool perforated interval. Another 10-foot-thick bentonite seal is placed on top of the gravel pack to isolate the interval to be sampled. The CONTRACTOR shall use a sounding device approved by the CONSULTANT to determine the depths to the top of the emplaced materials. The CONTRACTOR will be responsible for making adequate seals to prevent cross-contamination into the sample zone. Leakage into the sample zone will result in the reconstruction of the sample zone at no added cost to the OWNER.

7.3.4 Zonal Sampling and Testing

The CONTRACTOR shall airlift water to the surface for a minimum of eight (8) hours or until the temperature, electrical conductivity, and pH of the discharged water stabilizes and the CONSULTANT is satisfied that the water is visually clear and free of colloidal material or drilling additives and is representative of the aquifer. Airlifting development shall be paid on an hourly basis and 12 hours per zone have been included for budgetary purposes.

During purging, the CONSULTANT will be responsible for the collection of measurement of pH, Temperature, and Specific conductivity and the collection of water quality samples for laboratory analysis. For reference, samples will be collected for the following analysis:

- Total dissolved solids (TDS)
- Alkalinity, as Carbonate and Bicarbonate
- Nitrate as N (NO_3-N)
- Fluoride (F)
- Arsenic (As, total)
- Silca (Si)

Once the CONSULTANT has collected the necessary zonal water quality samples, the air will be turned off and the zone will be allowed to recover for up to two hours, followed by falling head testing conducted in the eductor pipe as described below. The sampling tool will then be raised to the next sampling interval and the process repeated until all zones are completed.

7.3.5 Zonal Falling Head (Slug) Testing

After each zonal sample has been collected, the air turned off, and the airline removed, the CONSULTANT shall obtain a measurement of the approximate static water level. If requested by the CONSULTANT, the CONTRACTOR will then stand by while the CONSULTANT performs a falling head test for that sample interval.

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This process will consist of installing an electronic pressure transducer below the water level, injecting a "slug" of water of known volume, and recording the change in water level until the water level has returned to static conditions. The CONTRACTOR shall provide a potable source of water for zonal falling head testing that must be approved by the CONSULTANT prior to injection. Falling head testing will be conducted a minimum of three times at each zone to ensure consistency with the data. The estimated standby time for each falling head test is approximately three (3) hours (two hours of recovery, one hour of testing), totaling 24 hours for the anticipated eight zonal sampling/testing intervals.

Should the CONTRACTOR be required to sample/test more than eight (8) zonal intervals, the additional zonal interval(s) will be paid on the same unit cost basis as the initial zonal intervals.

The OWNER will be consulted for final well design concurrence once lithologic and geophysical logging, zonal water quality sampling, and the falling head tests data have been analyzed by the CONSULTANT, which is estimated within 7 business days (excluding weekends) following completion of the pilot borehole testing program

7.4 WELL INSTALLATION

7.4.1 Materials

The anticipated materials to be installed are described below. The actual materials to be used are subject to change, based on information obtained during drilling and testing of the pilot borehole. The CONSULTANT will determine the exact well casing specification prior to installation of the well based on analysis of the data collected during drilling and testing of the pilot borehole. The CONSULTANT will provide the CONTRACTOR with the final well design within a period of 7 business days (excluding weekends) following completion of all zonal sampling and testing. No stand-by time will be allowed during this period and cost should be incorporated into CONTRACTOR'S bid.

The CONTRACTOR shall be responsible for the timely delivery to the drilling site of all well casing and well screen materials necessary to complete the production casing design program as determined by the CONSULTANT. The final length of the well screen interval(s) and the blank casing interval(s) will be determined by the CONSULTANT based on analyses of the pilot borehole and zonal testing data.

7.4.1.1 Well Casing

The blank well casing (**Figure 2**) shall be new Type 304L stainless steel manufactured in accordance with ASTM Specification A778. This casing shall have an 18.75-inch OD and have a 0.375-inch wall thickness. The total length of the upper blank well casing shall be 812 feet of 304L Stainless Steel, to

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allow for a minimum 2-foot stickup above land surface. A 10-foot section of blank Stainless-Steel casing with a bullnose bottom cap will be placed at the bottom of the well beneath the screen to serve as a sump. The casing shall be factory assembled in not less than 40-foot-long sections. Ends of casing lengths shall be as described in Section 7.4.2.1. Preliminary well designs are shown in **Figure 2**.

Prior to casing installation, the CONTRACTOR shall submit certified test reports or manufacturer provided specifications sheets to the CONSULTANT to demonstrate compliance with the physical and chemical properties of the casing specified herein.

7.4.1.2 Well Screen

The well screen shall be new Type 304L stainless steel Ful-Flo louvered and manufactured in accordance with ASTM Specification A778. The well screen shall be 18.75-inch OD and have a wall thickness of 0.375 inches. For bidding purposes, the total length of screen is 670 feet, and the slot size of the louvers will be approximately 0.090 inches, spaced using the Roscoe Moss Ful-Flo pattern. The final slot size will be based on results of sieve analysis of drill cuttings from samples collected within the proposed screen interval.

Prior to screen installation, the CONTRACTOR shall submit certified test reports or manufacturer specification sheets to the CONSULTANT and OWNER to demonstrate compliance with the physical and chemical properties of the well screen that are specified herein.

The screen dimensions are for bidding purposes only and are subject to change at the discretion of the CONSULTANT. The CONSULTANT will provide a final screen design based on analysis of the formation cuttings collected during drilling of the pilot borehole and geophysical logging.

7.4.1.3 Sounding and Gravel Feed Tubes

The well shall be equipped with one external sounder access tube to facilitate collection of water levels. The access tube shall be constructed of new 2-inch ID, Schedule 80 stainless steel tubing. Sections of the access tube shall be no less than 20 feet in length, and section joints shall have welded connections. The sounding tube shall be installed in the well annulus on the outside of the casing. The sounding tube shall terminate within the filter pack at 1,150 ft bgs and shall be perforated with vertical mill slots (0.050-inch) from 810 to 1,150 ft bgs. The sounding tube shall have an end cap and shall have a 2-foot stickup above land surface (**Figure 2**). The sounder access tube shall **NOT** be welded to the well casing but hung freely during well installation.

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One 3-inch ID gravel feed tube (Schedule 40 stainless steel) shall be installed from 2 feet above land surface to a depth of approximately 785 ft bgs **(Figure 2**). The joints between sections of the tube shall have welded connections in accordance with applicable provisions of the AWWA Standard C206 for welded joints. The gravel feed tube shall **NOT** be welded to the well casing but hung freely during well installation. The CONTRACTOR is responsible for installation of the gravel feed tube without crimps, obstructions, or other damage. Prior to final installation, the CONTRACTOR shall pass a 2 1/2-inch OD, 3-foot long "dummy" through the entire length of the gravel feed tube to ensure it is open and to remove any burrs or obstructions that may be in the tube. The top of the gravel feed tube shall be equipped with a watertight threaded cap.

The CONTRACTOR shall ensure that the gravel feed tube and the sounding tube are accessible during testing of the well, such that the tubes may be measured frequently and the filter pack topped off as needed.

7.4.1.4 Filter Pack

Filter pack material will be provided by the CONTRACTOR. Upon delivery and offloading of the material onsite, the material shall be inspected by the CONTRACTOR and CONSULTANT. Any flaws, defects, or other attributes of the filter pack material not in compliance with this Section must be identified during the inspection. Correction of any inadequacies thereof will be the responsibility of the CONTRACTOR.

Once the filter pack material has been inspected by all parties and determined to be in conformance with this Section, the CONTRACTOR will immediately become responsible for any and all transport and handling of the filter pack material prior to and during its installation, as well as during subsequent development and testing activities, prior to acceptance of the well. The CONTRACTOR shall obtain directly from the filter pack supplier, samples of the filter pack and a sieve analysis (percent retained through U.S. Standard sieve numbers 4, 8, 10, 16, 30, 40, 50, 100, and 200. A sample of the filter pack material shall be provided to the CONSULTANT for approval, a minimum of 3 days prior to the delivery of the filter pack to the well site.

Filter pack material will consist of 6 x 9 Gillibrand silica sand, or equivalent. The filter pack grain size may be modified by the CONSULTANT at the conclusion of drilling of the pilot hole based on the results of sieve analysis. The gradation of the filter pack, including sieve analysis, shall be submitted to the CONSULTANT for approval, a minimum of three (3) days prior to delivery of the filter pack to the site.

Filter pack material must be bagged in approximately 3,000-pound "super sacks" and shall be contained and temporarily stored onsite in such a manner as to prevent contamination. Each bag must be labeled with its actual weight. Unbagged or unlabeled delivery of filter pack material will not be accepted.

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7.4.1.5 Bentonite Seal

The bentonite seal (50 feet) material shall consist of sodium bentonite pellets, bentonite chips, or a bentonite slurry. The bentonite seal material shall contain no hazardous materials or gypsum. A sample of the bentonite material shall be provided to the CONSULTANT for approval no less than three days prior to installation.

The fine sand seal will consist of #60 clean well-rounded silica sand and will conform to the same specifications as outlined in Section 7.4.1.4.

7.4.1.6 Cement Grout

The cement grout seal material shall consist of a cement slurry containing 5.2 to 6.0 gallons of water per 94-pound sack of Portland cement. The Portland cement shall conform to ASTM Standard C150, Type II. The cement grout weight shall be measured prior to installation, as an indicator of the cement-water mix ratio. The cement grout slurry may contain pozzolanic (fly ash) material as an additive, which complies to ASTM Standard C618, and which shall not exceed 50 percent by volume of the cement. Water shall be added for the pozzolan as required. Sand or aggregate material additives shall not be used. Bentonite, as an additive, must be in powder form and shall not exceed five percent by weight of the cement, cement and sand, or cement and pozzolan. Water added for bentonite shall not exceed 1.3 gallons per 1.88 pounds of bentonite (two percent by weight in cement). Accelerator additives, such as calcium chloride or sodium chloride shall not be used. Water used for preparing the grout slurry shall be potable. The water source and the specific constituents of the cement grout must be approved by the CONSULTANT.

If the cement grout is not mixed onsite, the CONTRACTOR must provide the specific constituents of the cement grout to the CONSULTANT three days prior to placement of the grout. The cement grout slurry shall be mixed thoroughly and must be free of lumps to the satisfaction of the CONSULTANT. Cement grout which is not adequately mixed will be rejected by the CONSULTANT due to possibilities of the slurry bridging during placement. The CONTRACTOR must provide a cement mix design, the mix water source, and the specific constituents of the cement grout to the CONSULTANT at least three days prior to the start of cementing operations.

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7.4.2 Casing, Sounding, and Gravel Feed Tube Installation

During installation of the well casing, sounding tube, and gravel feed tube, the boring shall be kept full of drilling fluids of the types specified in Section 6.0 and free from any obstructions detrimental to complete casing installation. The well casing shall be set centered in the hole so as not to interfere in any way with the grout seal, filter pack, well installation, or maximum efficient operation of a 16-inch diameter vertical turbine pump for use in the 18-inch ID well casing. Details for the well construction are shown in **Figure 2**. The CONTRACTOR will be required to work continuously, on a 24-hour per day, 7-day per week basis while installing and completing the well.

This well casing shall be set by the CONTRACTOR in the open borehole with the casing and well screen set at depth intervals specified by the CONSULTANT. Stainless steel casing centralizers shall be utilized and secured to the steel well casing and screen, respectively, at intervals of not greater than 80 feet. The casing shall be hung in suspension until the filter pack and cement grout seal have been installed.

The sounding tube (Schedule 80, 2-inch ID, stainless steel) and gravel feed tube (Schedule 40, 3-inch ID, stainless steel) shall be installed in the annulus of the well borehole with a minimum 2-foot stickup above land surface. The tubes shall **NOT** be welded to the well casing and shall be hung in suspension until the casing, filter pack, and cement grout seal have been installed. The tube tops shall be equipped with water-tight threaded caps. The bottom of the sounding tube shall be capped, and the lower portions shall be perforated as described in Section 7.4.1.3 and shown in **Figure 2**. The bottom of the gravel feed tube shall be open-ended. The CONTRACTOR shall log the number, length, and type of casing joints placed in the borehole in their order of placement, including time and date.

Prior to final installation, the CONTRACTOR shall pass a 2 1/2-inch OD, 3-foot long “dummy” through the entire length of the gravel feed tube to ensure it is open, and to remove any burrs or obstructions that may be in the tube.

7.4.2.1 Joints in the Well Casing

Joints in the steel well casing and well screen shall be field welded in accordance with applicable provisions of the AWWA Standard C200 for welded joints. All well casing joints shall be aligned with alignment straps or other means as approved by the CONSULTANT prior to welding. A welding sequence will be followed which will avoid excessive distortion. The ends of the casing lengths shall be ground, or sufficiently scarfed, to remove sharp edges or burrs, and be free of all oil, grease, dirt, paint, cement, scale, slag or rust, or other foreign material. Section ends shall either be installed with joint collars or be beveled to a 30° angle, perpendicular to the axis of the casing, to facilitate proper alignment of joined casing sections, and shall not vary more than 0.010 inches at any point from a true plane at right angles

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to the axis of the casing. All welds shall be performed by an experienced welder, shall penetrate 100% of each beveled pipe end and completely fill the bevel, and be water-tight for prevention of poor quality or contaminated water penetrating into the well through the casing joints.

7.4.3 Annular Materials Installation

7.4.3.1 Filter Pack

Filter pack sand, conforming to the specifications of Section 7.4.1.4, shall be placed from the bottom of the well to the specified depth using a tremie pipe, and shall completely fill the annulus in the specified interval. The filter pack interval must extend at least 30 feet above the perforated interval (**Figure 2**). Drilling fluid shall be maintained to the full depth of the well and the well casing, and screen shall be maintained in suspension until the filter material placement has been completed to the specified level. Care must be taken to avoid bridging during installation of the filter pack. The CONTRACTOR shall keep a tally of all annulus material installed.

The filter pack shall be installed simultaneously with reverse circulation of drilling fluids down the annulus at a rate of no less than 250 gpm. At no time shall the bottom of the tremie pipe be located at a distance greater than 100 feet above the interval being filled during filter pack placement. The level of the filter pack shall be measured periodically during placement, as required by the CONSULTANT. The method of filter pack level measurement must be approved by the CONSULTANT. Placement of the filter pack will be continuous, except when additional precautions are necessary to prevent bridging, or measurements of the filter pack level are being conducted. The filter pack placement will proceed until the height of the filter pack is at least 5 feet above the bottom of the permanent gravel feed tube or at least 30 feet above the top of the screen. During the time of placement, fluid circulation shall be maintained through a CONSULTANT-approved swab block located no less than 40 feet below the fill depth of the filter pack material. The swab block shall be periodically reciprocated to remove fine-grained material, prevent bridging, and aid in settling the filter pack in the borehole.

Because a swabbing tool is to be used during filter pack installation to prevent bridging, it is imperative that the CONTRACTOR take extreme caution to prevent pressure differences, screen collapse or borehole collapse.

The quantity of filter pack material placed in the annulus shall not be less than that of the volume computed based on the results of the caliper log performed after borehole reaming. Upon completion of the filter pack placement, excess filter material will be judged as an indication of voids in the sand envelope, and corrective measures shall be undertaken at the CONTRACTOR'S expense. The specific method of placement and material must be approved by the CONSULTANT.

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Filter pack conforming to the specifications shall be placed from the bottom of the well to the specified depth using a tremie pipe, and shall completely fill the annulus in the specified interval. The filter pack interval must extend at least 20 feet above the perforated interval (**Figure 2**). Drilling fluid shall be maintained to the full depth of the well and the well casing, and screen shall be maintained in suspension until the filter material placement has been completed to the specified level. Care must be taken to avoid bridging during installation of the filter pack. The CONTRACTOR shall keep a tally of all annulus material installed.

7.4.3.2 Filter Pack Disinfection

Simultaneous with installation of the filter pack, an NSF-60 approved, 12% by weight sodium hypochlorite solution approved by the CONSULTANT shall be added to the filter pack at the rate of ⅓ gallon per cubic yard of filter pack material. The liquid sodium hypochlorite solution shall be applied in accordance with AWWA Standard C654 for disinfection of wells, in such a way that will produce a chlorine concentration of not less than 50 milligrams per liter (mg/L) in the entire volume of fluid within each well. Documentation shall be provided to the CONSULTANT prior to installation to demonstrate the hypochlorite does not exceed a 60-day shelf life (unless otherwise documented by the supplier), in order to prevent deterioration of hypochlorite concentration.

Installation of the liquid sodium hypochlorite solution shall be accomplished by flushing it into the well through a closed system that will prevent workers from exposure to chlorine vapors, in accordance with OSHA protocol. Solid calcium hypochlorite may be used in equivalent concentrations in lieu of sodium hypochlorite, only if NO partially hydrolyzed polyacrylamide (PHPA) polymers such as Baroid's EZ-Mud were used during drilling or reaming of the borehole, and only if approved by the CONSULTANT. The specific hypochlorite concentration and installation method must be approved by the CONSULTANT.

The CONTRACTOR is responsible for application of the disinfecting agent uniformly throughout the entire portion of the well below the water table, without relying on subsequent mechanical surging action for dispersing the disinfectant. The specific method used to disinfect the filter pack must be approved by the CONSULTANT.

7.4.3.3 Bentonite Seal and Fine Sand Seal

The bentonite seals and fine sand seal complying with Section 7.4.1.4 and Section 7.4.1.5, shall be installed in the well annulus through a tremie pipe. Ten vertical feet of the fine sand seal will be installed directly above the filter pack interval. A 50-foot bentonite seal will be placed directly above the fine sand interval (**Figure 2**). The specific installation procedure, the bentonite product, and the fine sand material must be approved by the CONSULTANT.

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7.4.3.4 Grout Seal

The well casing grout seal shall consist of a cement slurry conforming to the specification in Section 7.4.1.6. The grout shall be placed to completely fill the annular space between the well casing and the wall of the borehole from the top of the bentonite seal to land surface (**Figure 2**).

The grout shall be placed by pumping through a tremie pipe. Prior to pumping the cement grout through the tremie pipe into the annulus, the cement grout shall be passed through a 2-inch slotted bar strainer, in order to remove any unmixed lumps. When installing the grout, the discharge end of the tremie shall be continuously submerged in the grout until the zone to be grouted is completely filled.

The well casing shall be suspended in the borehole to maintain tension on the pipe throughout the grouting operation. The grout seal shall be placed in as few lifts as possible without compromising the stability of the well casing. The specific method of installation must be approved by the CONSULTANT. A minimum curing time for the well casing cement grout seal is 12 hours and the cement grout must obtain a compressive strength of 500 psi.

Upon completion of all work, CONTRACTOR shall ensure the cement level is flush with the top of the surface casing so as to not allow water to pool.

7.4.3.5 Surface Completion

A two-foot well casing stickup is required. A well casing cover plate with access port shall be installed.

7.5 SWAB AND AIRLIFT DEVELOPMENT

Initial well development shall be accomplished by simultaneously swabbing and airlift pumping. A detailed diagram of the development tool (minimum of 20 feet of perforated pipe) to be used must be submitted to the CONSULTANT for approval prior to mobilization. The CONTRACTOR will be required to have, for air-lifting purposes, a compressor capable of supplying a minimum of 750 cfm and 350 psi. Airlifting will require a minimum of a 6-inch ID eductor pipe with a minimum 1.5-inch ID airline. The swab tool shall be capped on the bottom.

Well development shall initially proceed from the top of the perforations to the bottom of the perforations to remove thick drilling fluids at a rate of no less than 3 minutes per foot of screen, unless otherwise directed by the CONSULTANT. During airlift development, water generated shall be conveyed to a baffled Adler Tank or similar to remove sediment prior to discharge to the City’s Sewer system located on Hunt Highway. Specifics regarding discharge are presented in Section 7.6..

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1st Pass: Swab and airlift from the bottom to top of the screen at a rate of 4 minutes per foot (1.5 to 2 hours per joint). Upon completion of this pass, a mixture of sodium hypochlorite and potable water at a concentration of 1,200 to 1,500 mg/L shall be pumped through the airline and into each target treatment interval. Following chemical addition into the well, flush the airline with an appropriate amount of potable water (~80 gallons) to clean the airline and help push the chemical solution beyond the well screen. The sodium hypochlorite solution will be allowed to "sit" for a period of 24 hours.

2nd Pass: Swab and airlift from the top to bottom at a rate of approximately 4 minutes per foot (1.5 to 2 hours per joint). The CONTRACTOR shall use sodium thiosulfate to neutralize the chlorinated development water prior to discharge.

3rd Pass: From the bottom of screen to top, the CONTRACTOR shall apply a CONSULTANT-approved chemical dispersant (NSF clay dispersant) through the airline at the same depths which received a dosage of sodium hypochlorite mixture. The CONTRACTOR shall dry-swab 3-5 strokes after each application. Following screen swabbing, the dispersant will also be added to the gravel feed tubes and sounding tubes in sufficient quantity to break up mud between the top of the louvers and the top of the filter pack. The dispersant will "sit" no less than 12 hours before development resumes. CONTRACTOR shall dry-swab the screen interval(s) during the sit period to agitate the dispersant in accordance with manufacturer specifications.

4th Pass: Swab and airlift from top to bottom at a rate of 10 minutes per foot (4 to 5 hours per joint) or until the discharge is clear and free of residual drilling muds. Once at the bottom of the well screen, airlift for approximately 1 to 2 hours to clean up any residual muds from the bottom of the sump.

During swab and airlift development, the CONTRACTOR shall maintain access to the gravel feed tube in order to collect tag measurements of the level and allow for the addition of filter pack during settling. The CONTRACTOR shall maintain a continuous flow of clean water through the gravel feed tube to avoid bridging of the gravel. The CONTRACTOR shall periodically measure the top of the filter pack in the gravel feed tube and maintain a record of the amount of settling and the amount of filter pack added. The top of the filter pack in the gravel feed tube will be monitored and maintained by the CONTRACTOR such that the filter pack levels remain between 10 and 40 feet above the bottom the gravel feed tube. If the top of the filter pack in the gravel feed tube falls within 10 feet of the bottom of the gravel feed tube, the CONSULTANT shall direct airlifting to stop until filter pack material is restored to a level greater than 10 feet from the bottom of the gravel feed tube. The CONSULTANT may request that additional dispersant be added to the gravel feed tube to confirm it is not plugged.

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Since the duration of well development will be based on results and not time, assume 168 hours (7 days) of development for bid purposes. The well development period of 168 hours could be extended to a length to be determined by the CONSULTANT as sufficient to meet the AWWA Standard for Water Wells (ANSI/AWWA A100-20) which states in Section 4.8 that sand content shall not exceed 5 milligrams per liter (mg/L) for 2 hours of continuous pumping the well at the designed discharge capacity.

Because a swabbing tool is to be used during development, it is imperative that the CONTRACTOR take extreme caution in order to prevent pressure differences, screen collapse or borehole collapse. During all passes, CONTRACTOR shall frequently monitor the level of the filter pack and top off as necessary to ensure the filter pack level does not drop below the top of the screen.

During swab and airlift development, water generated shall be conveyed to a baffled Adler Tank or similar to remove sediment prior to discharge to the City's Sewer system located on Hunt Highway. Specifics and details regarding the discharge are presented in Section 10.0. All drilling mud and sediments that settle out in the Adler tanks will need to be disposed of off-site at the CONTRACTORS expense.

The Contractor is responsible for obtaining all Local, State, and National permits required for discharging water and drilling water throughout the duration of the project.

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8.0 TEST PUMP INSTALLATION

8.1 TEST EQUIPMENT

The CONTRACTOR shall furnish and operate pumping equipment capable of pumping at a rates ranging from 500 gpm to 2,500 gpm and with satisfactory throttling devices and valves, so that the discharge can be adjusted to various rates. The test pump setting shall be determined by the CONSULTANT, based on the final well design. For bidding purposes, the anticipated pump setting is 810 ft bgs. The pumping unit shall be complete, with an ample power source and capable of being operated without interruption for a minimum period of 24 hours. All pump discharge shall be conveyed to a baffled Alder Tank or equivalent and conveyed to a sewer manhole located along Hunt Highway. Specifics regarding water management and discharge are presented in Section 10.0.

All pump components, column pipe, and sounding tubes shall be steam cleaned and disinfected by the CONTRACTOR and inspected by the CONSULTANT before installation. All products and materials necessary for lubrication, sealing, corrosion control, etc. (such as oil, grease, pipe dope, seals, etc.) must be of a type suitable and safe for potable water service. These materials will be stored separately from other lubricants to effectively eliminate the chance of non-food grade lubricants coming in contact with the wellbore and pipe. All materials designed to directly contact drilling fluids, pipe, tubing, etc., such as pipe dope or line shaft turbine oil, must have NSF approval, **and must not contain any PFAS or VOC. This includes any PTFE/Teflon tape and PTFE/Teflon based pipe dope.** The CONTRACTOR shall submit with their bid indicating drill rig availability and specific equipment to be used.

The pump and motor shall have a minimum rating for development and testing of the well. The pump and motor shall be a variable speed type capable of sustained pumping at a steady rate. The pump shall not be equipped with a check valve or any other device that restricts the free flow of water back down the column pipe when pumping is stopped. If a turbine pump is used, the CONTRACTOR shall enclose the drive shaft to the prime motor in a protective sleeve or cage to prevent workers from accidental contact with the rotating shaft. The protective sleeve must also be of sufficient strength to contain the drive shaft in the event of catastrophic driveshaft failure.

The CONTRACTOR shall install two 1.5-inch diameter galvanized steel or Schedule 80 PVC sounding tubes inside the well casing from the top of the casing to the top of the pump bowls or pump intake. Each sounding tube shall be capped on bottom and shall be perforated throughout the bottom 50 feet (approximately 230 to 280 feet) and thoroughly de-burred to permit safe installation and retrieval of pressure transducers and water level sounder probes. The sounding tube shall be installed in a manner as to avoid spiraling around the column pipe. The CONTRACTOR shall provide safe and unobstructed

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access to the sounding tube for water level measurements and to the gravel feed tube and shall not position the sounding tube beneath the driveshaft.

The CONTRACTOR shall provide outlets in the discharge line at points acceptable to the CONSULTANT for sand testing, water sampling and pressure monitoring. The sample port closest to the discharge will be equipped with a corporation cock for attaching a sand tester. Other sample ports will be equipped with hose bibs. The CONTRACTOR shall install an approved spigot or valve for water sample collection in the discharge pipe. The CONTRACTOR shall also install and provide access to a Rossum centrifugal sand tester or equivalent to measure sand production from the well during testing.

8.1.1 Equipment Decontamination

Prior to installation, all the down-well test pumping equipment (surface piping, fittings, valves, etc.) will be decontaminated onsite using a high-pressure steam cleaner to the satisfaction of the CONSULTANT.

8.1.2 Equipment Disinfection

Immediately following installation of the down-hole pumping equipment, a granular or liquid sodium hypochlorite (NOT calcium hypochlorite) or similar disinfectant shall be added to the well at the rate of 0.5-pounds per vertical foot of submergence, based on 70 percent chlorine content. If a lesser strength hypochlorite or other chlorine product is used, the quantity shall be adjusted accordingly.

The CONTRACTOR is responsible for application of the disinfectant uniformly throughout the entire portion of the well below the water table, without relying on subsequent mechanical surging action for dispersing the disinfectant. The specific method used to disinfect the well must be approved by the CONSULTANT.

8.2 PUMP DEVELOPMENT

The pump-and-surge development method shall be performed using procedures approved by the CONSULTANT. Development is anticipated to require approximately 36 hours and will consist of repeated cycles of pumping and surging, with each cycle including approximately 45 minutes of pumping followed by surging of the well a minimum of five times. Pumping rates will range from approximately 500 to 2,500 gallons per minute (gpm), as directed by the CONSULTANT.

The CONSULTANT shall monitor and record pumping rates, sand content, and water levels throughout development using appropriate instrumentation, including an electric water level sounder. The duration of development may be extended or reduced at the direction of the CONSULTANT to achieve compliance with ANSI/AWWA A100-20 standards, including attainment of a sand content of less than 5 mg/L as

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measured by a Rossum sand tester during a minimum 2-hour pumping period at the target production rate. Development shall also continue until stabilization of field water quality parameters, including pH, temperature, and specific conductance.

The CONTRACTOR shall maintain access to the gravel feed tube and sounding tube throughout development operations to allow monitoring and adjustment of the filter pack. The CONTRACTOR shall ensure that the filter pack level is maintained such that the well screen remains fully covered at all times.

The CONTRACTOR shall operate the test pump at discharge rates specified by the CONSULTANT and shall control discharge using a gate valve or variable frequency drive (VFD). Discharge rates shall be maintained within ±5 percent of the target rate for the duration of development. The discharge piping shall be configured to ensure the pipe remains full at the location of the flow meter during all pumping conditions.

Pump discharge shall be measured using a calibrated propeller-type flow meter capable of providing both instantaneous and totalized flow readings. Documentation verifying meter calibration and accuracy shall be provided to the CONSULTANT prior to use, and all discharge measurement equipment shall be subject to CONSULTANT approval.

Discharged water shall be routed through a baffled Adler tank, or equivalent sedimentation system, to remove suspended solids prior to discharge to a location determined by the OWNER. Disposal of accumulated drilling fluids and sediments from the tank shall be the responsibility of the CONTRACTOR and shall be performed off-site at no additional cost to the OWNER.

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9.0 AQUIFER TESTING

9.1 GENERAL

Aquifer testing shall include a 20-hour step-rate discharge test followed by a minimum 24-hour recovery period, and a subsequent 24-hour constant-rate discharge test with a final 24-hour recovery period. The test pump, motor, and associated discharge assembly installed for development shall be utilized for all aquifer testing activities. The CONSULTANT shall determine the final pump setting depth based on completed well construction, with an assumed setting depth of approximately 800 feet for cost estimation purposes. All water produced during testing shall be discharged to the City of Chandler sewer system located along Hunt Highway in accordance with the requirements outlined in Section 10.0.

*Step Rate Discharge Te*st

A 20-hour step-rate discharge test shall be conducted using the test pump installed for development. Pumping rates will be incrementally increased over successive steps ranging from approximately 500 to 2,500 gpm, with each step maintained for a duration of approximately 4 hours unless otherwise directed by the CONSULTANT based on observed drawdown response. Near the start of the step-rate test, the CONSULTANT shall collect a groundwater sample to evaluate the presence or absence of total coliform and Escherichia coli (E. coli) bacteria. If either constituent is detected, the CONTRACTOR shall re-disinfect the well during the recovery period using granular or liquid hypochlorite (or equivalent) at a rate of 0.5 pounds per vertical foot of submergence (based on 70 percent chlorine content) prior to initiation of the constant-rate test.

Constant-Rate Discharge Test

Following completion of the step-rate test, a minimum 24-hour recovery period shall be observed, after which a 24-hour constant-rate discharge test shall be conducted. The pumping rate for the constant-rate test shall be selected by the CONSULTANT based on results of the step-rate test. Water levels shall be allowed to recover for approximately 24 hours following completion of the constant-rate test. During the constant-rate test, the CONSULTANT shall collect a groundwater sample approximately 24 to 36 hours after pumping begins for analysis of Arizona New Source Approval constituents, along with an additional PFAS sample collected by the CONSULTANT or OWNER. A reminder that the CONTRACTOR shall provide and install an approved sampling spigot or valve on the discharge piping that does not contain any PFAS materials, including PTFE/Teflon or PTFE-based products.

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The pump equipment shall not be removed from the well until completion of the final water level recovery test following the constant-rate aquifer test. The CONTRACTOR shall also provide two discharge meters, as specified in Section 8.3. The test pump, motor, and accessories must be approved by the CONSULTANT. Upon removal of the test pump and ancillary equipment the CONTRACOTR shall secure the well head with a temporary metal plate.

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10.0 WATER MANAGEMENT AND DISCHARGE.

All water generated during zonal testing, well development, and aquifer testing shall be conveyed through a baffled Adler tank (or approved equivalent) for solids separation prior to discharge to the City of Chandler sanitary sewer system.

For bidding purposes, the CONTRACTOR shall assume that approximately 500 feet of temporary 10-inch diameter discharge pipeline will be required to convey water from the well site to the designated sewer connection along Hunt Highway. The CONTRACTOR shall verify the actual pipeline length, routing, and connection location in the field and shall be responsible for all necessary adjustments to accommodate site conditions.

The CONTRACTOR shall furnish, install, maintain, and remove all temporary discharge piping, connections, and appurtenances required to convey water to the sewer system. The temporary discharge system, including the Adler tank and piping, shall remain in place and fully operational for the duration of zonal testing (Section 7.3.3), swab and airlift development (Section 7.5), pump development (Section 8.2) and aquifer testing (Section 9.0).

Due to the required discharge alignment within the Hunt Highway right-of-way, the CONTRACTOR shall prepare and submit a Traffic Control Plan to the City of Chandler online permitting portal for review and approval prior to the commencement of work. The Traffic Control Plan shall address lane shifts, pedestrian access, and protection measures for discharge piping crossings, consistent with City requirements.

The costs associated with temporary discharge piping, Adler tank operations, sewer connection, and traffic control shall be included under the bid item for Water Management and Discharge

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11.0 WELL PLUMBNESS AND ALIGNMENT

Tests for plumbness and alignment shall be made by the CONTRACTOR during the pilot hole drilling, and after the complete construction of the well. If the well fails the plumbness and alignment tests, the CONTRACTOR must correct the plumbness and alignment to the satisfaction and approval of the CONSULTANT. Plumbness and alignment correction costs will be at the expense of the CONTRACTOR.

During drilling of the pilot hole, plumbness and alignment tests shall be performed by the CONTRACTOR by use of an inclinometer (Eastman mechanical drift indicator available from the Eastman Oil Well Survey Company, or equal) at 100-foot intervals. A 3-degree unit shall be used with the inclinometer. The maximum acceptable drift from vertical shall be no more than 0.50 degrees, unless otherwise approved by the CONSULTANT.

Upon completion of pilot borehole drilling and following complete construction of the well, plumbness and alignment shall be tested using a Magnetic Deviation Tool or other device approved by the CONSULTANT. The maximum acceptable drift shall not exceed two-thirds the smallest inside diameter of that part of the borehole or well being tested per 100 feet of depth as specified by AWWA Specification document A100-20, Section 4.7.9.2. If the pilot hole does not conform to AWWA A100-20, Section 4.7.9.2, the CONTRACTOR must submit to the CONSULTANT a written plan of corrective action.

If following the Magnetic Deviation survey, a dogleg in the well casing is observed, the plumbness and alignment of the well casing shall be tested by lowering a dummy to the bottom of the well as specified by AWWA Specification document A100-20, Section 4.7.9.3, and Appendix D. The dummy shall consist of a ridged spindle with round plates on both ends. The outer diameter of the end plates shall be ½-inch smaller than the ID of the well casing. The distance between the end plates shall be approximately 1.2 times the diameter of the casing. The dummy shall be heavy enough to keep the plumb line taut. The plates shall consist of suitable materials which will not harm the interior of the casing while being lowered or raised. Should the dummy fail to move freely throughout the entire length of the casing and screen, the plumbness and/or alignment of the well casing shall be corrected by the CONTRACTOR at its own expense. The dummy test for plumbness and alignment must be witnessed by the CONSULTANT to be acceptable.

The CONSULTANT may waive the requirements of plumbness if: (1) the CONTRACTOR has exercised all possible care in constructing the well and the defect is due to circumstances beyond the CONTRACTOR'S control, or (2) the utility of the completed well will not be materially affected. In no event will the provisions of this Section with respect to alignment be waived. The CONTRACTOR shall prepare

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a written report of the results of the plumbness and alignment tests to the CONSULTANT. That report shall be furnished to the CONSULTANT prior to acceptance of the well.

11.1 FINAL VIDEO SURVEY

After completion of the well, the CONTRACTOR shall provide a color video survey of the well. The video survey camera shall include downward-looking and side-view capabilities. The quality and clarity of the well video must be acceptable to the CONSULTANT and OWNER. The CONSULTANT shall approve any well additives to increase the clarity of the video. The video survey shall be conducted under the observation of the CONSULTANT. Prior to the acceptance of the well, two copies of the final well video shall be provided by the CONTRACTOR to the CONSULTANT.

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12.0 VISITATION AND INSPECTION

The CONTRACTOR agrees, at any reasonable time during the term of work, that the CONSULTANT, OWNER, or any of their duly authorized representatives, shall have access to the CONTRACTOR'S facilities and have the right to examine books, documents, and records of the CONTRACTOR involving transactions related to these specifications.

The CONTRACTOR further agrees to include in all subcontracts hereunder, if any, a provision that the SUBCONTRACTOR agrees that the CONSULTANT, OWNER, or any of their duly authorized representatives, shall have access to the CONTRACTOR'S facilities, and have the right to examine any books, documents, and records of the CONTRACTOR and any SUBCONTRACTORS involving transactions related to the subcontract and these specifications.

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13.0 SITE PREPARATION AND RESTORATION

Prior to mobilization of drilling equipment, the CONTRACTOR shall prepare the well site as necessary to safely accommodate drilling, testing, and well construction activities. Site preparation may include, but is not limited to, site grading, landscaping, and removal of decomposed granite and installation of temporary work surfaces to support drilling operations. During the drill site preparation, storm water control within the existing retention basin must be maintained to allow connectivity to the existing drywells.

Following completion of drilling and associated activities, the CONTRACTOR shall restore the site to conditions comparable to those existing prior to construction. All site preparation and restoration work shall be coordinated with, and is subject to review and approval by, the OWNER prior to final payment

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14.0 MEASUREMENT AND PAYMENT

14.1 BASIS OF MEASUREMENT AND PAYMENT

Compensation for all work to be performed under this specification will be made under the bid tabs presented in this Section. The prices for said bid items shall be full compensation for all costs in connection therewith. Principal features of the work to be included under the various bid items will be on a linear foot, hourly, daily, per ton, per cubic yard, or lump sum basis, as designated. Unless otherwise noted, lump sum is defined as 100% payment upon completion of a line item.

14.2 PAYMENT ITEMIZATION

The bid itemization elements below are for construction, development, and testing of one 18-inch well. Detailed descriptions of each item of the payment schedule are presented below.

14.2.1 Item A1 – Site Preparation

Consists of activities to prepare the Hunt Highway Well drill site. Payment will be made on a lump sum basis.

14.2.2 Item A2 - Mobilization / Demobilization

Consists of assembling all drilling, testing, and support equipment at the job site; removing or transferring the equipment from the job site when the work is completed; and job site cleanup. Payment will be made on a lump sum basis, 50% at mobilization and the remaining 50% at project completion.

14.2.3 Item A3 - Noise Control

Consists of all labor, equipment, and material costs associated with installation and removal of sound barricades at the well site in accordance with Section 2.3. The sound barricades shall be a minimum of 24 feet tall and approximately 680 linear feet along the north, south, east, and west sides of the drill site. Payment will be made on a linear foot basis.

14.2.4 Item A4 - Surface Casing Construction

Consists of all labor, equipment, and material costs associated with drilling a 42-inch diameter borehole to 59 ft bgs and providing and installing a 36-inch OD LCS surface casing, and the installation of a cement grout seal in accordance with Section 7.2. Payment will be made on a lump sum basis.

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14.2.5 Item A5 – Drill Minimum 16-inch Diameter Pilot Borehole

Consists of all labor, equipment, and material costs associated with drilling a minimum 16-inch pilot borehole to a depth of 1,500 ft bgs in accordance with Section 7.3 and the collection of lithologic samples in accordance with Section 7.3.1. These costs should incorporate all labor, equipment, materials, and recording requirements. Payment will be made on a linear foot basis.

14.2.6 Item A6 - Geophysical Logging

Consists of all labor, equipment, and material costs (or standby time and SUBCONTRACTOR costs) associated with the conduct of a series of geophysical analyses as described in Section 7.3.2. Payment will be made on a lump sum basis.

14.2.7 Item A7 - Formation Water Quality Sampling and Testing (8 zones)

Consists of all labor, equipment, and material costs associated with the collection of zone-specific groundwater samples and falling head testing of up to 8 zones as specified in Section 7.3.3, 7.3.4 and 7.3.5. Payment for each successfully constructed zone will be made on a lump sum basis and airlift development and falling head tests will be made on an hourly basis.

14.2.8 Item A8 - Ream Borehole to 28-inch Diameter

Consists of all labor, equipment, and material costs associated with reaming to a minimum 28-inch diameter borehole from 59 feet to 1500 feet in accordance with Section 7.3. These costs should incorporate all labor, equipment, materials, and recording requirements. Payment will be made on a linear foot basis.

14.2.9 Item A9 - 18.75-inch ID 304L Blank Well Casing

Consists of the cost of the well casing described in Section 7.4.1. Payment will be on a linear foot basis.

14.2.10 Item A10 - 18.75-inch ID 304L SS “Ful Flo” Well Screen

Consists of the cost of the well screen described in Section 7.4.1. Payment will be on a linear foot basis.

14.2.11 Item A11 - 2-inch ID 304L SS Sounding Tube (Sch 80)

Consists of the cost of the sounding tube described in Section 7.4.1. Payment will be on a linear foot basis.

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14.2.12 Item A12 - 3-inch ID 304L SS Gravel Feed Tube (Sch 40)

Consists of the cost of the gravel feed tube described in Section 7.4.1. Payment will be on a linear foot basis.

14.2.13 Item A13 - Installation of 18.75-inch Well Casing and Screen

Consists of all labor and equipment costs required for installation of the well casing and well screen including welding requirements, logs and records, as specified in Section 7.4.2. Payment will be made on a linear foot basis.

14.2.14 Item A14 - Installation 2-inch Sounding Tube

Consists of all labor and equipment costs required for installation of the sounding tube including welding requirements, logs and records, as specified in Section 7.4.2. Payment will be made on a linear foot basis.

14.2.15 Item A15 - Installation of 3-inch Gravel Feed Tube

Consists of all labor and equipment costs required for installation of a gravel feed tube including welding requirements, logs and records, as specified in Section 7.4.2. Payment will be made on a linear foot basis.

14.2.16 Item A16 - Bentonite Seal

Consists of all labor, equipment, and material costs to furnish (Section 7.4.1) and install (Section 7.4.3) the filter pack, bentonite seals. Payment will be made on a cubic foot basis.

14.2.17 Item A17 – Filter Pack

Consists of all labor, equipment, and material costs to furnish (Section 7.4.1) and install (Section 7.4.3) the filter pack. Payment will be made on a per ton basis.

14.2.18 Item A18 - Cement Grout

Consists of all labor, equipment, and material costs to furnish (Section 7.4.1) and install (Section 7.4.3) the cement grout. Payment will be made on a cubic yard basis.

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14.2.19 Item A19 - Swab and Air-lift Development

Consists of all labor, equipment, and material costs associated with the development of the production well by swabbing and air-lifting as specified in Section 7.5. Payment will be made on an hourly basis.

14.2.20 Item A20 - Furnish, Install, and Remove Test Pump, and Ancillary Equipment

Consists of all labor, equipment, and material, as described in Section 8.0. Payment will be made on a lump sum basis.

14.2.21 Item A21 - Pumping Tests (Development, Step-rate and Constant-rate)

Consists of the cost of all labor associated with pump development as described in Section 8.2, and aquifer test requirements as described in Section 9.0. Payment will be made on an hourly basis.

14.2.22 Item A22 – Water Management and Discharge

Costs for conveyance piping, connections to sewer, and traffic control as described in Section 10.0. payment will be made on a lump sum basis

14.2.23 Item A23 - Plumbness and Alignment Test, and Video Survey

Consists of the testing of the production well for plumbness and alignment (magnetic dip and dummy test) and well video, as described in Section 8.3 and 8.4, respectively. Payment will be made on a lump sum basis.

14.2.24 Item A24 - Unavoidable Delay with Crew

Consists of the cost of maintaining equipment and personnel if a work stoppage occurs, which is not due to any fault of the CONTRACTOR or SUBCONTRACTORS. Payment will be made on an hourly basis.

14.2.25 Item A25 - Unavoidable Delay Without Crew

Consists of the cost of maintaining equipment if a work stoppage occurs, which is not due to any fault of the CONTRACTOR or SUBCONTRACTORS. Payment will be made on an hourly basis.

14.2.26 Item A26 – Site Restoration

Consists of restoring the site around the well to preexisting conditions as described in Section 10.0, payment will be made on a Lump Sum basis. Final payment will be provided once site restoration has been approved by the OWNER

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14.2.27 Item A27 - Owners Allowance

Allowance can only be used on an as needed basis for Owner requested changes and additional scope not already included in the intent of the project, with prior written approval from the Owner. The payment type of the Owners Allowance will be dependent on the items that are deemed compensable (e.g. hourly, lineal foot, lump sum, time and materials, etc)

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FIGURES

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HYDROGEOLOGICAL ANALYSIS AND WELL IMPACT STUDY HUNT HIGHWAY WELL SITE CITY OF CHANDLER, MARICOPA COUNTY, AZ

FIGURE NUMBER: 1

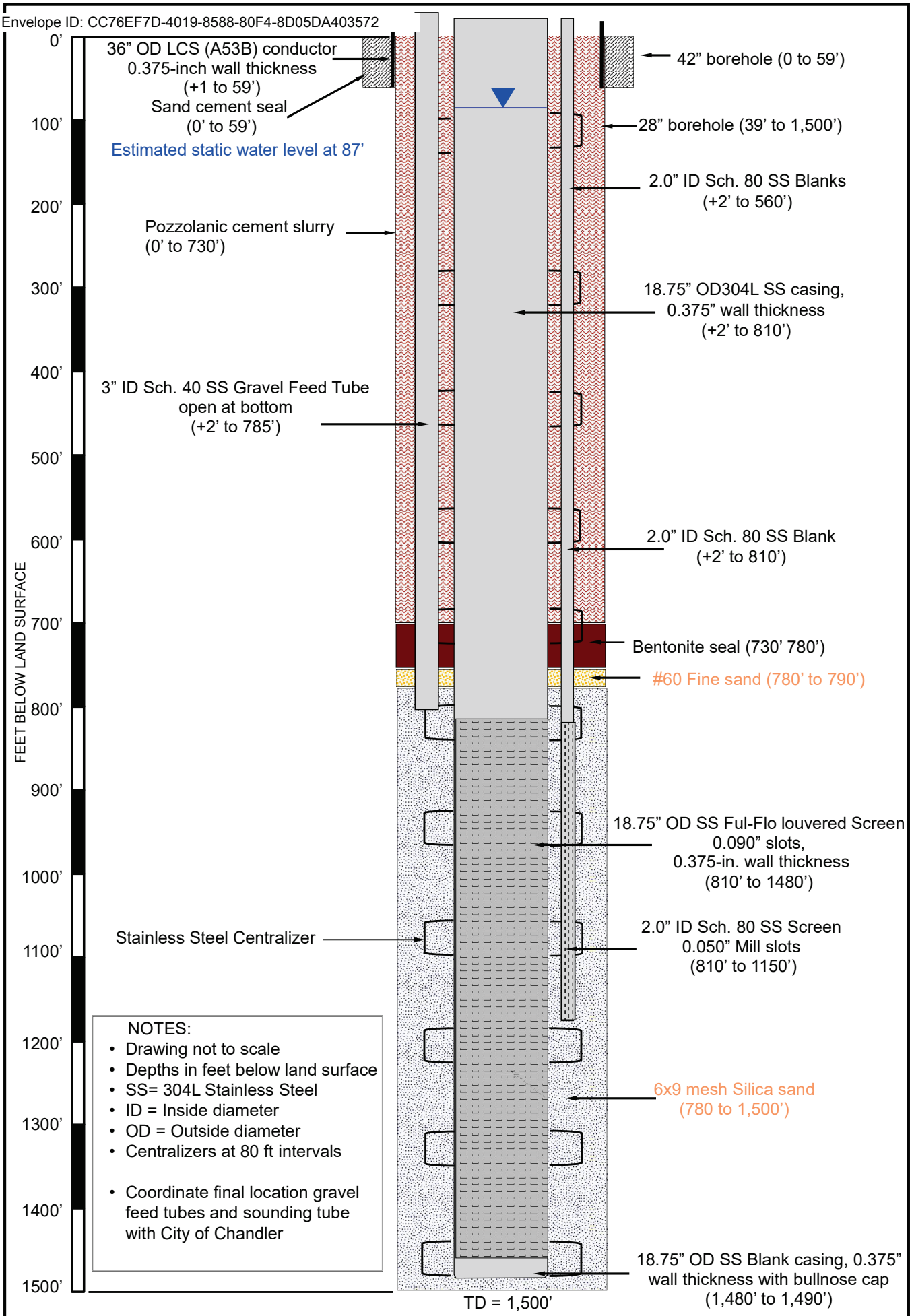
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www.mnwa.com

DRAWN BY:	APPROVED BY:	PROJECT NUMBER:
AA	HS	25-0735
DATE: 03/19/2026	DATE: 03/19/2026	

WELL LOCATION MAP

S:\MyDocs\SCPRJ\2025\25-0735 Chandler Hunt Hwy Well Site\GIS\APRX\25-0735_Chandler_Hunt_Highway1.aprx

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NOTES:

- Drawing not to scale
- Depths in feet below land surface
- SS= 304L Stainless Steel
- ID = Inside diameter
- OD = Outside diameter
- Centralizers at 80 ft intervals
- Coordinate final location gravel feed tubes and sounding tube with City of Chandler

FIGURE NUMBER: 2	HUNT HIGHWAY WELL SITE CITY OF CHANDLER, MARICOPA COUNTY, AZ	MATRIXNEWORLD A TRUE ENVIRONMENTAL COMPANY Matrix New World Engineering, Land Surveying and Landscape Architecture, P.C. 3033 North 44th Street, Suite 270 Phoenix, Arizona 85018 Tel: 602-955-5547 Fax: 602-955-7586 www.mnwe.com	PRELIMINARY DESIGN HUNT HWY WELL DRAWN BY: AA DATE: 01/12/2026 APPROVED BY: HB DATE: 03/24/2026 PROJECT NUMBER: 25-0735

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

APPENDICES

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APPENDIX A

LOCAL WELL CONTRACTOR REPORTS AND LOGS

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MATRIX NEW WORLD
Engineering Progress

LOG OF BORING

WELL NO. GRIC Casino SHEET 1 OF 16

PROJECT: GRIC San Tan Casino Well PROJECT #: 21-787 ADWR WELL #: N/A

WELL LOCATION: D(3-6) 6 BAA FOREMAN: Adam Bailey

DRILLING CONTRACTOR: Layne Drilling LOGGED BY: R. Cleary

DRILLING EQUIPMENT: Gardner/Denver (430) START DATE: 02/25/22 FINISH DATE: 03/8/22

DRILLING METHOD: Reverse Circulation WATER LEVEL: ~148 ft bls

TOTAL DEPTH: 1500 ft bgs SAMPLING METHOD: Grab Samples

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
		UPPER ALLUVIAL UNIT (UAU)	
5	**CL**	**LEAN CLAY (0'-8')**	SMR Contractors drilled the conductor casing borehole with a solid stem auger rig from land surface to 39 feet on 2/9/22. Layne installed 36-inch outside diameter low-carbon steel casing to 39 feet.
10	**SW**	**WELL GRADED SAND (8'-17')** 10% fine to coarse gravel; 85% fine to coarse sand; 5% silt/clay	
15			
20	**CL**	**LEAN CLAY WITH SAND (17'-25')** 0% gravel; 20% fine sand; 80% low plasticity fines	
25			
30	**SM**	**SILTY SAND (25'-40')** 0% gravel; 60% fine sand; 40% silt/clay	
35			
40			
45	**SM**	**SILTY SAND (40'-80')** – Medium brown-gray (5/3 7.5 YR), silty sand with trace gravel, poorly sorted, no plasticity, no reaction to HCl, no cementation, very soft consistency. Trace gravel is fine grained, moderately sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low toughness and low dry strength. Coarse grains are dominated by granodiorite, quartz, basalt, and red volcanics: Trace Gravel; 70-80% Sand; 20-30% Silt/Clay	Commenced drilling pilot borehole on 2/25/22 With drill rig no. 11989 (430) by the reverse circulation method using a 17.5-inch diameter mill tooth bit Mud: viscosity: 30, weight: 8.5, pH: 10, sand content: trace
50			
55			
60			
65			
70			Mud: viscosity: 30, weight: 8.6, pH: 9, sand content: trace
75			

Notes:

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MATRIX NEW WORLD
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LOG OF BORING

WELL NO. GRIC Casino SHEET 2 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
75	SM	**SILTY SAND (40'-80')** – Medium brown-gray (4/3 7.5 YR), silty sand with trace gravel, poorly sorted, no plasticity, no reaction to HCl, no cementation, very soft consistency. Trace gravel is fine grained, moderately sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low toughness and low dry strength. Coarse grains are dominated by granodiorite, quartz, basalt, and red volcanics: Trace Gravel; 70-80% Sand; 20-30% Silt/Clay	
80			Weight on bit: 5-6,000 lbs Mud: viscosity: 30, weight: 8.7, pH: 8, sand content: 0.25
85			
90		**SANDY CLAY (80'-180')** – Medium brown-gray (5/4 7.5 YR), sandy clay with trace gravel, poorly sorted, medium plasticity, moderate to strong reaction to HCl, moderate cementation, firm consistency. Trace gravel is fine to coarse grained, poorly sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have high toughness and high dry strength. Coarse grains are dominated by quartz, granodiorite, basalt, and granite: Trace Gravel; 15-25% Sand; 75-85% Silt/Clay	
95			
100			
105			
110			Mud: viscosity: 32, weight: 8.8, pH: 10, sand content: 0.25
115			
120			
125	CL		
130			
135			
140			
145			
150		Static Groundwater level at 148 ft	Mud: viscosity: 32, weight: 8.8, pH: 9, sand content: 0.25
155			
160			
165			
170			
175			

Notes:

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

LOG OF BORING

WELL NO. GRIC Casino SHEET 3 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
175	CL	**SANDY CLAY (80'-180')** – Medium brown-gray (5/4 7.5 YR), sandy clay with trace gravel, poorly sorted, medium plasticity, moderate to strong reaction to HCl, moderate cementation, firm consistency. Trace gravel is fine to coarse grained, poorly sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have high toughness and high dry strength. Coarse grains are dominated by quartz, granidiorite, basalt, and granite: Trace Gravel; 15-25% Sand; 75-85% Silt/Clay	Weight on bit: 12-14,000 lbs Weight of string: 48,000 lbs Mud: viscosity: 32, weight: 9.0, pH: 8, sand content: 0.50 . ROP – 7.5 ft/hr
180	SC		
185			
190		**CLAYEY SAND (180'-190')** – Medium brown (4/3 7.5 YR), clayey sand with little gravel, poorly sorted, medium plasticity, moderate reaction to HCl, moderate cementation, soft to firm consistency. Gravel is fine to coarse grained, poorly sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and medium dry strength. Coarse grains include quartz, granodiorite, andesite, and pink volcanics: 5% Gravel; 55% Sand; 40% Silt/Clay	
195			
200			
205			
210		**LEAN CLAY WITH SAND (190'-260')** – Medium brown (5/4 7.5 YR), lean clay with sand, poorly sorted, medium plasticity, moderate to strong reaction to HCl, moderate cementation, soft to firm consistency. Gravel is fine to coarse grained, poorly sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have high toughness and high dry strength. Coarse grains are dominated by granodiorite, quartz, and red volcanics:	
215			
220			
225	CL	Trace Gravel; 15-40% Sand; 60-85% Silt/Clay	Mud: viscosity: 33, weight: 9.0, pH: 8, sand content: 0.75. ROP – 6.54 ft/hr
230			
235			
240		Increasing sand 240'-260'	
245			
250			Deviation at 250': 0.25º
255			
260			
265	CL	**LEAN CLAY (260'-280')** – Medium brown (4/3 7.5 YR), lean clay with little sand and trace gravel, poorly sorted, medium plasticity, moderate to strong reaction to HCl, moderate cementation, firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and high dry strength. Coarse grains are dominated by granodiorite, quartz, and basalt: Trace Gravel; 5-10% Sand; 90-95% Silt/Clay	Mud: viscosity: 34, weight: 9.0, pH: 8, sand content: 0.50
270			
275			

Notes:

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LOG OF BORING

WELL NO. GRIC Casino SHEET 4 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
275	CL	**LEAN CLAY (260'-280')** – Medium brown (4/3 7.5 YR), lean clay with little sand and trace gravel, poorly sorted, medium plasticity, moderate to strong reaction to HCl, moderate cementation, firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and high dry strength. Coarse grains are dominated by granodiorite, quartz, and basalt: Trace Gravel; 5-10% Sand; 90-95% Silt/Clay	
280			
285	SC		Mud: viscosity: 34, weight: 9.0, pH: 8, sand content: trace
290		**CLAYEY SAND (280'-290')** – Medium brown (4/3 7.5 YR), clayey sand with trace gravel, poorly sorted, low to medium plasticity, weak reaction to HCl, weak cementation, soft consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and medium dry strength. Coarse grains are dominated by granodiorite, quartz, granite, and basalt: Trace Gravel; 70% Sand; 30% Silt/Clay	
295			
300			
305			
310	CL	**LEAN CLAY (290'-340')** – Medium brown (5/4 7.5 YR), lean clay with little sand and gravel, moderately sorted, medium plasticity, moderate to strong reaction to HCl, moderate to strong cementation, firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to medium grained, moderately sorted, subangular to rounded. Fines have medium toughness and high dry strength. Coarse grains are dominated by granodiorite, quartz, and basalt: 0-5% Gravel; 5-15% Sand; 80-95% Silt/Clay	
315			Mud: viscosity: 34, weight: 9.0, pH: 8, sand content: 0.25
320			
325			
330			
335			
340	SC	**CLAYEY SAND (340'-360')** – Brown-gray (4/1 7.5 YR), clayey sand with trace gravel, poorly sorted, low to medium plasticity, weak reaction to HCl, weak cementation, soft to firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to coarse grained, poorly sorted, subangular to rounded. Fines have medium toughness and low to medium dry strength. Coarse grains are dominated by quartz, granodiorite, granite, basalt, and red volcanics: Trace Gravel; 70-80% Sand; 20-30% Silt/Clay	
345			
350			Mud: viscosity: 34, weight: 9.1, pH: 8, sand content: 0.25
355			
360	CL	**LEAN CLAY (360'-490')** – Medium brown (5/4 7.5 YR), lean clay with little sand and trace gravel, moderately sorted, medium plasticity, moderate to strong reaction to HCl, moderate to strong cementation, firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to medium grained, moderately sorted, subangular to rounded. Fines have high toughness and high dry strength. Coarse grains are dominated by quartz and granodiorite: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay	
365			
370			
375			

Notes:

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LOG OF BORING

WELL NO. GRIC Casino SHEET 5 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
375–475	CL	**LEAN CLAY (360'-490')** – Medium brown (5/4 7.5 YR), lean clay with little sand and trace gravel, moderately sorted, medium plasticity, moderate to strong reaction to HCl, moderate to strong cementation, firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to medium grained, moderately sorted, subangular to rounded. Fines have high toughness and high dry strength. Coarse grains are dominated by quartz and granodiorite: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay Increasing cementation 440'-450'	Weight on bit: 14-16,000 lbs Mud: viscosity: 34, weight: 9, pH: 8, sand content: 0.25 Mud: viscosity: 35, weight: 9, pH: 8, sand content: 0.25 Mud: viscosity: 31, weight: 8.9, pH: 8, sand content: 0.50

Notes:

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LOG OF BORING

WELL NO. GRIC Casino SHEET 6 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
475–490	CL	**LEAN CLAY (360'-490')** – Medium brown (5/4 7.5 YR), lean clay with little sand and trace gravel, moderately sorted, medium plasticity, moderate to strong reaction to HCl, moderate to strong cementation, firm consistency. Gravel is fine grained, moderately sorted, subrounded. Sand is fine to medium grained, moderately sorted, subangular to rounded. Fines have high toughness and high dry strength. Coarse grains are dominated by quartz and granodiorite: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay	
490–510	SW /SC	**WELL GRADED SAND WITH CLAY (490'-510')** – Brown-gray (4/1 7.5 YR), well graded sand with clay, poorly sorted, no plasticity, no to weak reaction to HCl, weak cementation, soft consistency. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low toughness and low dry strength. Coarse grains dominated by quartz, granodiorite, granite, basalt, and red volcanics: 0% Gravel; 90-95% Sand; 5-10% Silt/Clay **MIDDLE ALLUVIAL UNIT (MAU)**	
510–575	CL	**SANDY CLAY (510'-580')** – Medium brown (4/3 7.5 YR), sandy clay with little gravel, poorly sorted, medium plasticity, moderate to strong reaction to HCl, weak cementation, firm consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and medium dry strength. Coarse grains dominated by basalt, quartz, and granodiorite: 5-15% Gravel; 30-40% Sand; 45-65% Silt/Clay	Mud: viscosity: 33, weight: 8.9, pH: 8, sand content: 0.50 Deviation at 550': 0.25º Mud: viscosity: 33, weight: 9.0, pH: 8, sand content: 0.50

Notes:

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WELL NO. GRIC Casino SHEET 7 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
575	CL	**SANDY CLAY (510'-580')** – Medium brown (4/3 7.5 YR), sandy clay with little gravel, poorly sorted, medium plasticity, moderate to strong reaction to HCl, weak cementation, firm consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and medium dry strength. Coarse grains dominated by basalt, quartz, and granodiorite: 5-15% Gravel; 30-40% Sand; 45-65% Silt/Clay	
580			
585			
590			
595		**LEAN CLAY (580'-910')** – Medium brown (4/3 7.5 YR), lean clay with little sand and trace gravel, well sorted, medium plasticity, moderate to strong reaction to HCl, weak cementation, firm consistency. Gravel is fine grained, well sorted, subangular. Sand is fine grained, well sorted, subangular to subrounded. Fines have medium toughness and medium dry strength: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay	Weight on bit: 14-16,000 lbs Mud: viscosity: 32, weight: 9.0, pH: 8, sand content: 0.25
600			
605			
610			
615			
620			
625	CL		
630			
635			
640			
645			
650			Deviation at 650': 0.25º
655			
660			
665			
670			
675			

Notes:

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WELL NO. GRIC Casino SHEET 8 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
675			
680			
685			
690			
695			
700			
705			
710			
715			
720	CL	**LEAN CLAY (580'-910')** – Medium brown (4/3 7.5 YR), lean clay with little sand and trace gravel, well sorted, medium plasticity, moderate to strong reaction to HCl, weak cementation, firm consistency. Gravel is fine grained, well sorted, subangular. Sand is fine grained, well sorted, subangular to subrounded. Fines have medium toughness and medium dry strength: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay	Weight on bit: 14-16,000 lbs Mud: viscosity: 33, weight: 9.0, pH: 9, sand content: 0.25. ROP – 10.5 ft/hr
725			
730			
735			
740			
745			
750			Deviation at 750': 0º
755			
760			
765			
770			Mud: viscosity: 33, weight: 9.1, pH: 9, sand content: 0.50
775			

Notes:

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WELL NO. GRIC Casino SHEET 9 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
775	CL	**LEAN CLAY (580'-910')** – Medium brown (4/3 7.5 YR), lean clay with little sand and trace gravel, well sorted, medium plasticity, moderate to strong reaction to HCl, weak cementation, firm consistency. Gravel is fine grained, well sorted, subangular. Sand is fine grained, well sorted, subangular to subrounded. Fines have medium toughness and medium dry strength: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay	
780			
785			
790			
795			
800			
805			
810			
815			
820			
825			
830			Mud: viscosity: 34, weight: 9.1, pH: 9, sand content: 0.75
835			
840			
845			
850			Deviation at 850': 0º
855			
860			
865			
870			
875			

Notes:

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WELL NO. GRIC Casino SHEET 10 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
875–910	CL	**LEAN CLAY (580'-910')** – Medium brown (4/3 7.5 YR), lean clay with little sand and trace gravel, well sorted, medium plasticity, moderate to strong reaction to HCl, weak cementation, firm consistency. Gravel is fine grained, well sorted, subangular. Sand is fine grained, well sorted, subangular to subrounded. Fines have medium toughness and medium dry strength: Trace Gravel; 5-15% Sand; 85-95% Silt/Clay **LOWER ALLUVIAL UNIT (LAU)**	Mud: viscosity: 33, weight: 9.3, pH: 8, sand content: 0.50
910–975	SW /SC	**WELL GRADED SAND WITH CLAY (910'-1040')** – Brown-gray (4/2 7.5 YR), well graded sand with clay and little gravel, poorly sorted, no to low plasticity, weak to moderate reaction to HCl, no to weak cementation, soft consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and low to medium dry strength. Coarse grains are dominated by subangular to subrounded diorite, quartz, and granite: 10-20% Gravel; 70-85% Sand; 5-10% Silt/Clay	Mud: viscosity: 34, weight: 9.1, pH: 9, sand content: 0.25 ROP 12.4 ft/hr **Zonal Sample #7– 930 ft** Deviation at 950': 0º

Notes:

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WELL NO GRIC Casino SHEET 11 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
975			
980			Mud: viscosity: 35, weight: 9.1, pH: 9, sand content: 0.25
985			
990			
995			
1000	SW /SC	**WELL GRADED SAND WITH CLAY (910'-1040')** – Brown-gray (4/2 7.5 YR), well graded sand with clay and little gravel, poorly sorted, no to low plasticity, weak to moderate reaction to HCl, no to weak cementation, soft consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have medium toughness and low to medium dry strength. Coarse grains are dominated by subangular to subrounded diorite, quartz, and granite: 10-20% Gravel; 70-85% Sand; 5-10% Silt/Clay	**Zonal Sample #6– 1001 ft**
1005			
1010			
1015			
1020			Weight on bit: 14-16,000 lbs Mud: viscosity: 33, weight: 9.2, pH: 9, sand content: 0.25
1025			
1030			
1035			
1040	GC	**CLAYEY GRAVEL (1040'-1050')** – Medium brown (4/3 7.5 YR), clayey gravel with sand, poorly sorted, no to medium plasticity, strong reaction to HCl, weak cementation, soft to firm consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low to medium toughness and low to medium dry strength. Coarse grains are dominated by diorite and granite: 40-50% Gravel; 25-30% Sand; 15-20% Silt/Clay	
1045			
1050			Deviation at 1050': 0.25º Mud: viscosity: 35, weight: 9.2, pH: 8, sand content: 0.25
1055			
1060	GW /GC	**WELL GRADED GRAVEL WITH CLAY (1050'-1070')** – Brown-gray (4/1 7.5 YR), well graded gravel with clay and sand, poorly sorted, no to low plasticity, weak to moderate reaction to HCl, weak cementation, soft consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low to medium toughness and low to medium dry strength. Coarse grains are dominated by diorite and granite: 40-50% Gravel; 25-30% Sand; 15-20% Silt/Clay	**Zonal Sample #5– 1060 ft**
1065			
1070	SW /SC		
1075			

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WELL NO. GRIC Casino SHEET 12 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
1075		**WELL GRADED SAND WITH CLAY (910'-1040')** – Brown-gray (4/1 7.5 YR), well graded sand with clay and little gravel, poorly sorted, no to low plasticity, weak to moderate reaction to HCl, weak cementation, soft consistency. Gravel is fine grained, moderately sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low toughness and no to low dry strength. Coarse grains are dominated by subangular diorite and granite sand: 5-15% Gravel; 75-90% Sand; 5-10% Silt/Clay	Mud: viscosity: 34, weight: 9.2, pH: 8, sand content: 0.25
1080			
1085			
1090			
1095			
1100			
1105	**SW /SC**		Mud: viscosity: 34, weight: 9.1, pH: 9, sand content: 0.25
1110			
1115			
1120			**Zonal Sample #4– 1120 ft**
1125			
1130			
1135			Mud: viscosity: 34, weight: 9.2, pH: 8, sand content: 0.25
1140		**WELL GRADED GRAVEL WITH CLAY (1140'-1230')** – Brown-gray (4/1 7.5 YR), well graded gravel with clay and sand, poorly sorted, no to low plasticity, no to weak reaction to HCl, weak cementation, soft consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low to medium toughness and low dry strength. Coarse grains are dominated by fine to coarse subangular diorite and granite gravel: 45-80% Gravel; 15-45% Sand; 5-10% Silt/Clay Increasing gravel 1140-1150' Increasing clay to 10% 1160-1180'	
1145			
1150			Deviation at 1150': 0.25º
1155	**GW /GC**		
1160			Weight on bit: 14-16,000 lbs Mud: viscosity: 35, weight: 9.2, pH: 8, sand content: 0.25. ROP – 10 ft.hr
1165			
1170			
1175			

Notes:

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WELL NO. GRIC Casino SHEET 13 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
1175–1230	GW /GC	**WELL GRADED GRAVEL WITH CLAY (1140'-1230')** – Brown-gray (4/1 7.5 YR), well graded gravel with clay and sand, poorly sorted, no to low plasticity, no to weak reaction to HCl, weak cementation, soft consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low to medium toughness and low dry strength. Coarse grains are dominated by fine to coarse subangular diorite and granite gravel: 45-80% Gravel; 15-45% Sand; 5-10% Silt/Clay	Mud: viscosity: 35, weight: 9.2, pH: 9, sand content: 0.25. ROP – 5 ft /hr **Zonal Sample #3– 1210 ft**
1230–1250	GC	**CLAYEY GRAVEL (1230'-1250')** – Brown-gray (4/1 7.5 YR), clayey gravel with sand, poorly sorted, low to medium plasticity, weak reaction to HCl, weak cementation, soft to firm consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is medium to coarse grained, poorly sorted, subangular to subrounded. Fines have low to medium toughness and low to medium dry strength. Coarse grains are dominated by diorite and granite: 40-50% Gravel; 35-40% Sand; 15-20% Silt/Clay	Switch from milled tooth to button bit Weight on bit: 16-18,000 lbs
1250–1260	GW	**WELL GRADED GRAVEL WITH CLAY (1250'-1270')** – Brown-gray (4/1 7.5 YR), well graded gravel with clay and sand, no to low plasticity, no to weak reaction to HCl, no to weak cementation, soft to firm consistency. Gravel is fine to coarse grained, poorly sorted, subangular to subrounded. Sand is fine to coarse grained, poorly sorted, subangular to subrounded. Fines have low to medium toughness and low dry strength. Coarse grains are dominated by diorite, granite, and schist fragments: 55% Gravel; 40% Sand; 5% Silt/Clay	Deviation at 1250': 0.25º Mud: viscosity: 34, weight: 9.3, pH: 7, sand content: trace
1260–1275	W. Pinal Schist	**Weathered Bedrock (1270'-1300')** – Dark brown-gray (2.5/1 7.5 YR), weathered and altered Pinal schist. Argillic and sericite alteration appear to be present. Altered clay minerals have a weak reaction to HCl, Coarse grains are dominated grey angular fragments of schist and quartz;	**Zonal Sample #2– 1270 ft**

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WELL NO. GRIC Casino SHEET 14 OF 16

Depth BGS (Feet)	USCS Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
1275–1300	W. Bdrk (GC)	**Weathered Bedrock (1270'-1300')** – Dark brown-gray (2.5/1 7.5 YR), weathered schist intermixed with clay, weak to moderate reaction to HCl, weak cementation, moderate plasticity, soft to firm consistency. Coarse grains are dominated grey angular framents of schist and quartz; 55% Gravel; 40% Sand; 5% Silt/Clay	Mud: viscosity: 35, weight: 9.3, pH: 8, sand content: 0.25
1300–1320	Fault Zone (CL)	**Gravelly Clay /Fault Gouge (1300'-1320')** – Red brown to yellow brown (4/6 7.5 YR), clay intermixed with grey schist fragments, medium plasticity, moderate reaction to HCl, weak cementation, firm consistency. Gravel and sand sized fragments are dominated by grey schist : 25% Gravel; 15% Sand; 60% Silt/Clay	Weight on bit: 18-20,000 lbs Mud: viscosity: 36, weight: 9.4, pH: 9, sand content: trace. ROP – 4.5 ft/hr
1320–1375	Fractured Bedrock (GW/GC)	**Fractured Bedrock (1320' – 1430')** – Brown-gray (3/1 7.5 YR), Fractured schist with argillic alteration. Gravel and sand sized material contain abundant angular fragments of schist and quartz: 60-85% Gravel; 10-30% Sand; 5-10% Silt/Clay	Mud: viscosity: 33, weight: 9.2, pH: 8, sand content: 0.25 Mud: viscosity: 33, weight: 9.2, pH: 8, sand content: trace **Zonal Sample #1 – 1360 ft**

Notes:

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WELL NO. GRIC Casino SHEET 15 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
1375	Fractured Bedrock (GW/GC)	**Fractured Bedrock (1320' – 1430')** – Brown-gray (3/1 7.5 YR), Fractured schist with argillic alteration. Gravel and sand sized material contain abundant angular fragments of schist and quartz: 60-85% Gravel; 10-30% Sand; 5-10% Silt/Clay	
1380			
1385			
1390			Mud: viscosity: 36, weight: 9.2, pH: 9, sand content: 0.25
1395			
1400			
1405			
1410			
1415			Mud: viscosity: 35, weight: 9.2, pH: 9, sand content: 0.25. ROP – 4 ft/hr
1420	Fault Zone (CL)	**Gravelly Clay /Fault Zone (1420'-1480')** – Red brown to yellow brown (4/6 7.5 YR), clay intermixed with grey schist fragments, medium plasticity, moderate reaction to HCl, weak cementation, firm consistency. Gravel and sand sized fragments are dominated by grey schist : 25% Gravel; 15% Sand; 60% Silt/Clay	
1425			
1430			
1435			
1440		Color change to dark brown 1440 – 1450 '	
1445			
1450		Color change to yellow brown 1440 – 1470 '	Weight on bit: 18-20,000 lbs Mud: viscosity: 33, weight: 9.2, pH: 8, sand content: 0.25
1455			
1460			
1465			
1470		Color change to tan 1470 – 1480 '	
1475			

Notes:

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MATRIX NEW WORLD
Engineering Progress

LOG OF BORING

WELL NO. GRIC Casino SHEET 16 OF 16

Depth BGS (Feet)	USC Symbol	DESCRIPTION	DETAILS AND/OR DRILLING REMARKS
1475			
1480	Fractured Bedrock	**Gravelly Clay /Fault Zone (1420'-1480')** – Red brown to yellow brown (4/6 7.5 YR), clay intermixed with grey schist fragments, medium plasticity, moderate reaction to HCl, weak cementation, firm consistency. Gravel and sand sized fragments are dominated by grey schist : 25% Gravel; 15% Sand; 60% Silt/Clay	Weight on bit: 18-20,000 lbs Mud: viscosity: 32, weight: 9.3, pH: 9, sand content: 0.25. ROP – 4 ft/hr
1485			
1490			
1495		**Fractured Bedrock (1480' – 1500')** – Brown-gray (3/1 7.5 YR), Fractured schist with argillic alteration. Gravel and sand sized material contain angular fragments of schist and quartz: 60-85% Gravel; 10-30% Sand; 5-10% Silt/Clay	
1500			Finish drilling pilot hole 3/8/22
1505			
1510			
1515		**End of Hole at 1500'**	
1520			
1525			
1530			
1535			
1540			
1545			
1550			
1555			
1560			
1565			
1570			
1575			

Notes:

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ARIZONA DEPARTMENT OF WATER RESOURCES
Information Management Unit
P.O. Box 36020, Phoenix, Arizona 85067-3589
(602) 771-8527 * (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

- This report should be prepared by the driller in detail and filed with the Department within 30 days following completion of the well.

** PLEASE PRINT CLEARLY **

RECEIVED
JUL 3 2012
ARIZONA DEPARTMENT OF WATER RESOURCES

FILE NUMBER: D(2-5) 34 BCC
WELL REGISTRATION NUMBER: 55- 221193
PERMIT NUMBER (IF ISSUED):

SECTION 1. DRILLING AUTHORIZATION

Mail To:

Drilling Firm

NAME	DWR LICENSE NUMBER
ARIZONA BEEMAN DRILLING dba Morex Investments	1360
ADDRESS	**TELEPHONE NUMBER**
15563 E. U. S. HWY 60	480-983-2542
CITY/STATE/ZIP	**FAX**
GOLD CANYON, AZ 85118	

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION OR INDIVIDUAL: SOUTHWEST EXPLORATION SERVICES, LLC

MAILING ADDRESS: 25811 S. ARIZONA AVE.

CITY / STATE / ZIP: CHANDLER, AZ 85249

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 480-290-0399

FAX:

WELL NAME (e.g., MW-1, PZ-3, Lot 25 Well, Smith Well, etc.): SWEX 1

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
2S	5E	34	NW 1/4	SW 1/4	SW 1/4

LATITUDE			LONGITUDE		
° Degrees	' Minutes	"N Seconds	° Degrees	' Minutes	"W Seconds

METHOD OF LATITUDE / LONGITUDE (CHECK ONE): ☐ USGS Quad Map ☐ Conventional Survey ☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade

LAND SURFACE ELEVATION AT WELL: Feet Above Sea Level

METHOD OF ELEVATION (CHECK ONE): ☐ USGS Quad Map ☐ Conventional Survey ☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade

*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE): ☐ NAD-83 ☐ Other (please specify):

COUNTY	ASSESSOR'S PARCEL ID NUMBER BOOK	MAP	PARCEL
MARICOPA	303	58	006U

SECTION 3. WELL CONSTRUCTION DETAILS

Drill Method (CHECK ONE)

- ☐ Air Rotary
- ☐ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☒ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted
- ☐ Air Percussion / Odex Tubing
- ☐ Other (please specify)

Method of Well Development (CHECK ONE)

- ☒ Airlift
- ☐ Bail
- ☐ Surge Back
- ☐ Surge Pump
- ☐ Other (please specify)

Method of Sealing at Reduction Points (CHECK ONE)

- ☒ None
- ☐ Packed
- ☐ Swedged
- ☐ Welded
- ☐ Other (please specify)

Condition of Well (CHECK ONE)

- ☒ Capped
- ☐ Pump Installed

Construction Dates

DATE WELL CONSTRUCTION STARTED: 4-10-2012

DATE WELL CONSTRUCTION COMPLETED: 4-19-2012

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

DRILLING FIRM	SIGNATURE OF QUALIFYING PARTY	DATE
AZ Beeman Drilling		5-14-2012

KR

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Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55- 221193

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILT) (attach additional page if needed)

DEPTH OF BORING	DEPTH OF COMPLETED WELL
720 Feet Below Land Surface	720 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	20	16
20	720	9 5/8

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE IF ANY (inches)
+1	20	10 3/4	X				X						
0	40	5		X			X						
40	60	5		X							X		.032
60	120			X			X						
120	160			X							X		.032
160	240						X						
240	320										X		032
320	440						X						
440	460										X		032
460	540						X						
540	600										X		.032
600	720						X						

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	20			X								
2	720										X	3/8

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Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55- 221193

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	DESCRIPTION Describe material, grain size, color, etc.	Check (X) every interval where water was encountered
0	20	Silty clay w/ SAND	
20	60	Silty SANDY gravel	
60	120	gravels & COBBLES	
120	160	CLAY	
160	220	gravel w/ clay	
220	400	SANDY Silty gravel	
400	520	CLAYEY SAND	
520	720	CLAY	

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ARIZONA DEPARTMENT OF WATER RESOURCES
OPERATIONS DIVISION
15 South 15th Avenue
Phoenix, Arizona 85007

MICROFILMED

RECEIVED
JAN 18 1994
OPERATIONS DIV.

REGISTRATION OF EXISTING WELLS

READ INSTRUCTIONS ON BACK OF THIS FORM BEFORE COMPLETING
PRINT (Blue or Black ink) OR TYPE - **FILE IN DUPLICATE**

REGISTRATION FEE (check one)

EXEMPT WELL (No registration fee)		☐
LATE FEE	- $10.00	
NON-EXEMPT WELL	- $10.00	☒
LATE FEE	- $10.00	
	$20.00	

For Office Use Only
REGISTRATION NO. 55- 806730L
FILE NO. D(2-5) 30AAA
FILED 1/18/94 By MAD.
(Date)
INA 1
AMA Phx
WS 07 SB 06

Pima Utility

1. Name of Well Owner: ~~Sun Lakes Marketing Limited Partnership~~ Telephone (602) 895-9200

9532 E. Riggs Rd. | Sun Lakes, | AZ | 85248
Mailing Address | City | State | Zip

2. File and/or Control Number under previous groundwater law: unknown 35- unknown
File No. Control No.

3. a. The well is located within the NE 1/4 NE 1/4 NE 1/4, Section 30
10 acre 40 acre 160 acre
of Township 2 N/S, Range 5 E/W, G&SRB&M, in the County of Maricopa
(The above description is required for processing, see 3.a. under Instructions on reverse side).

b. If in a subdivision: Name of subdivision NA

Lot No. _____ Address _____

4. The principal use(s) of water: Irrigation
(Examples: irrigation, stockwater, domestic, municipal, industrial)

5. If for irrigation use, number of acres irrigated from well estimated to be 640 to 1,280 acres.

6. Owner of land on which well is located. If same as Item 1, check this box ☒

Name | Address | City | State | Zip

7. Well data
a. Depth of Well NA feet
b. Diameter of casing 20 inches
c. Depth of casing minimum of 344 feet
d. Type of casing Steel
e. Maximum pump capacity No pump gallons per minute.
f. Depth to water 75 (1993) feet below land surface.
g. Date well completed _____ (Month) _____ (Day) 1946 (Year) **(Required)**

8. The place(s) of use of water. If same as Item 3, check this box ☒

_____ 1/4 _____ 1/4 _____ 1/4, Section _____ Township _____ Range _____

ENTERED JUN 21 1994

KARL L. Polen
Typed or Printed Name

K L Polen V.P. / General Partner
Signature of Well Owner

1/4/94
Date

DWR-55-65 01/93 (Rev.)

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INSTRUCTIONS FOR COMPLETING REGISTRATION FORM

General Instructions

1. A person who owns an "Existing Well" shall register the well, pursuant to A.R.S. § 45-593, by filing this form in duplicate with the Department of Water Resources not later than midnight June 14, 1982. The form must be completed and signed. Failure to do so will constitute a violation of A.R.S. § 45-593, and may subject the well owner to injunction and/or civil penalties, pursuant to A.R.S. Title 45, Article 12.

2. An "Existing Well" means (1) a well which was drilled on or before June 12, 1980 and which is not abandoned or sealed, or (2) a well which was not completed on or before June 12, 1980, but for which a Notice of Intention to Drill was on file with the Arizona Water Commission on or before June 12, 1980.

3. **A $10.00 registration fee is required for Non-Exempt Wells only. However, a $10.00 late registration fee must accompany registration forms for all Exempt and Non-Exempt Wells.**

4. An "Exempt Well" means a well having a pump with a maximum capacity of not more than 35 gallons per minute which is used to withdraw groundwater. An Exempt Well may include the non-commercial irrigation of less than two (2) acres of land.

5. A "Non-Exempt Well" means a well that is not an "Exempt Well".

INSTRUCTIONS FOR REGISTRATION QUESTIONS

1. The Registrant must be the owner of the well and may be an individual, public or private corporation, company, partnership, firm, association, society, estate, trust, any other private organization or enterprise, the United States, any state, territory or country or a governmental entity, political subdivision or municipal corporation organized under or subject to the constitution and laws of the State.

2. If you own an existing irrigation well drilled at any time, or any other type of well drilled on or after June 20,1968, you should have an assigned control and/or file number. Write these numbers in item 2, if available.

3. a. Furnish complete well location to include the 1/4 1/4 1/4 sections, Section Number, Township, and Range (**Required**). If the information required for the well location is not known, you may contact the Mapping Division of the County Assessor's Office in the county which the property is located.
   b. If the well is in a subdivision and you have this information, give the subdivision name, lot number and address.

4. Show all purposes for which the water is used.

5. If the well is used for irrigation, list the number of acres irrigated by this well in 1980.

6. If the owner of the land is an individual, give the last name, first name, middle initial. If the owner of the land is a corporation, partnership, firm, etc., fill in the appropriate title.

7. Complete the section on Well Data with the most accurate information available to you. If the data (Items a thru f) is not available, write N/A in the blanks. **Item g requires at least the year the well was completed, if month and day are unknown.**

8. Give the legal description of the place of use of the water. If place of use is in a subdivision and legal description is not available, give the subdivision name, lot number and/or address as required in item 3.

9. The person in whose name a well is registered shall notify the Department of any change in ownership and shall keep all information on the registration record current and accurate. A form entitled "Change of Well Information/Ownership" is available for this purpose. A blank form will be furnished with the returned duplicate copy of the registration form.

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LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encounterd, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	345	Existing 20 inch well
345	385	Conglomerate
385	400	Conglomerate
400	515	Sandy Clay & Gravel
515	525	Clay & Gravel
525	560	Clay, Sanc, Gravel
560	600	Sand, Clay, Con
600	635	Sticky Clay, sand
635	690	Sticky Clay
690	770	Clay, Sand, Gravel
770	861	Clay, Sand

I hereby certify that this well was drilled by me (or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller Name: The B.L. Weber Group, Inc.

16825 S. Weber Drive

Street

Chandler, AZ 85226

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APPENDIX B

CONTRACTOR SUBMITTAL LIST

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Appendix B. Contractor Submittal List
Hunt Highway Well
City of Chandler

ITEM	DESCRIPTION	DUE	SUBMITTAL RECPIENT	SECTION	Page No.
Resumes	Resume of the drilling foreman, including years of experience, using reverse circulation methods in the installation of high capacity production wells.	With Bid	OWNER/CONSULTANT	1.4.1	2
License Copies	Copies of the Arizona Well Driller's License and Arizona Registrar of Contractor license.	With Bid	OWNER/CONSULTANT	1.4.1	2
Non-Disclosure Agreements	Executed non-disclosure agreements from all subcontractors who will have involvement in the performance of any of the work.	Prior to mobilization	OWNER/CONSULTANT	1.4.3	3
Health and Safety Plan	Provide a Health and Site Safety plan at least 21 days prior to mobilization. Must be kept on site at all times.	Prior to mobilization	OWNER/CONSULTANT	1.4.4	4
Dust Control permit	Procure a diust control permit from Maricopa county	Prior to mobilization	OWNER/CONSULTANT	2.2	5
Underground Utilities	Notification and documentation that Arizona 811 has been contacted and all applicable utilities have been properly marked.	Prior to mobilization	OWNER/CONSULTANT	3.3	7
Equipment & Availability	List of specific drilling equipment to be used, and written statement of the availability date(s) for each drilling rig to mobilize and begin the specified work.	With Bid	OWNER/CONSULTANT	4.0	8
Certification of Decontamination	Certification showing decontamination of drilling rig and downhole tools.	Prior to mobilization	OWNER/CONSULTANT	4.0	8
Penetration Rate Log	Time log showing actual penetration time required to drill each foot of the borehole including notation of type of bit used, approximate weight on the bit, and rotation speed of the drill string.	Upon completion of project	OWNER/CONSULTANT	5.2	9
Daily Driller's Report	Complete description of all formations; number of feet drilled; number of hours on job; hours of shutdown due to breakdown; length and type of casing set; volumes of filter pack and annular seal installed; other pertinent data on an approved form.	Daily	OWNER/CONSULTANT	5.3	9
Driller's Log	Detailed driller's log in compliance with requirements of ADWR.	Upon completion of project	OWNER/CONSULTANT	5.4	9
Drilling Fluid Record	Record of drilling fluid properties recorded on an API-approved form (time, depth, and results of all drilling fluid tests; all materials added to system including type, time, depth; variances or modifications from original program).	Daily	OWNER/CONSULTANT	5.5	10
Drilling Fluid Control Plan	Outline of specific drilling fluid additives the DRILLER plans to use; how anticipated changes in drilling conditions will affect the plan; fluid testing procedures; equipment to be used.	Prior to mobilization	OWNER/CONSULTANT	6.2	11
Geophysical Logs	3 draft copies and 6 final copies of the geophysical logs of the pilot borehole and reamed borehole.	Upon completion of logging	OWNER/CONSULTANT	7.3.2	17
Safety Data Sheets	SDSs from the manufacturer and information related to NSF approval for all drilling fluid additives.	Prior to use	OWNER/CONSULTANT	6.3	11
Certified Test Reports of Surface Casing Steel	Reports that demonstrate compliance with physical and chemical properties as specified.	Prior to installation	OWNER/CONSULTANT	7.2.2.1	14
Specific Constituents of Cement Grout Seal for Surface Casing	Listing of all constituents of the cement grout used to seal the surface casing.	Prior to installation	OWNER/CONSULTANT	7.2.2.2	14
Formation Sampling Method	Details of the proposed method for collecting samples of cuttings.	Prior to mobilization	OWNER/CONSULTANT	7.3.1	16
Formation Water Sampling Qualifications	Submit formation water quality sampling qualifications of the driller that will conduct the sampling.	Prior to mobilization	OWNER/CONSULTANT	7.33	17
Certified Test Reports of Well Casing Steel	Reports that demonstrate compliance with physical and chemical properties as specified.	Prior to installation	OWNER/CONSULTANT	7.4.1.1	17
Screen Specifications - Certified Test Reports of Well Screen Material	Details of screen (tensile strength, collapse strength, screen weight (pounds per linear foot) maximum recommended hang weight, etc.) provided by well screen. Reports that demonstrate compliance with physical and chemical properties as specified.	Prior to installation	OWNER/CONSULTANT	7.4.1.2	18
Filter Pack Disinfectant	Documentation that the sodium hypochlorite chlorine solution does not exceed its 60-day shelf life (unless otherwise documented by the supplier)	Prior to installation	OWNER/CONSULTANT	7.4.3.2	23
Filter Pack Sample and Sieve Analysis	Sample of the filter pack to be used and sieve analysis of the filter pack material.	Prior to installation	OWNER/CONSULTANT	7.4.1.4	19
Sample of Bentonite Material	Sample of bentonite material.	Prior to installation	OWNER/CONSULTANT	7.4.1.5	20
Cement Mix Design	Design of cement mix; mix water source; specific constituents of the cement grout.	Prior to installation	OWNER/CONSULTANT	7.4.1.6	20
Traffic Control Plan	Traffic Ocntrol Plan for discharge piping and connection to Sewer along Hunt Highway	Prior to mobilization	OWNER/CONSULTANT	10	34

Appendix B. Contractor Submittal List
Hunt Highway Well
City of Chandler

ITEM	DESCRIPTION	DUE	SUBMITTAL RECPIENT	SECTION	Page No.
Gyroscopic survey	Three (3) field copies of gyroscopic logs containing a horizontal projection of the well and tabulated survey data as specified.	Prior to well acceptance	OWNER/CONSULTANT	11	35
Final Plumbness and Alignment Report	Six (6) copies of final Plumbness and Alignment report, as well as an electronic file of the report and logging data.	Prior to well acceptance	OWNER/CONSULTANT	11	35
Final Well Video	Two (2) copies of the final well video in USB format.	Prior to well acceptance	OWNER/CONSULTANT	11.1	36

Note: This Submittal List is provided for information only, and is not intended as an exhaustive list. The CONTRACTOR should refer to the Technical Specification for detailed submittal requirements for this project.
The CONSULTANT or OWNER makes no guarantee or warrantee that this list includes all requirements placed on the CONTRACTOR.

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EXHIBIT D

GIS / GPS DATA DELIVERY REQUIREMENTS

N/A

Docusign Envelope ID: CC76EF7D-4019-8588-80F4-8D05DA403572

EXHIBIT E

FEDERAL PROVISIONS

N/A