



City of Chandler, Arizona
Public Works & Utilities Department
Capital Projects Division

CONSTRUCTION BID

CHANDLER HEIGHTS ROAD GILBERT ROAD TO VAL VISTA DRIVE

CITY PROJECT NO.: ST1804.401
FEDERAL PROJECT NO.: CHN-0(244)D
ADOT PROJECT NO. T0203 01C

MAYOR

Kevin Hartke

VICE MAYOR

OD Harris

COUNCIL

Matt Orlando Christine Ellis
Mark Stewart Angel Encinas Jane Poston

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer

CITY OF CHANDLER, ARIZONA

CONSTRUCTION BID

TABLE OF CONTENTS

INVITATION TO BID

BID SUBMITTAL LIST

CONSTRUCTION AGREEMENT

PROJECT SPECIFIC SPECIAL PROVISIONS

GENERAL CONDITIONS

TECHNICAL SPECIFICATIONS

GIS/GPS DATA DELIVERY REQUIREMENTS

(if applicable)

FEDERAL PROVISIONS

(if applicable)



INVITATION TO BID

**CHANDLER HEIGHTS ROAD
GILBERT ROAD TO VAL VISTA DRIVE**

**CITY PROJECT NO.: ST1804.401
FEDERAL PROJECT NO.: CHN-0(244)D; ADOT PROJECT NO. T0203 01C**

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.

All firms must be registered on the Arizona Procurement Portal (<https://app.az.gov/>) vendor registration system prior to submitting a Bid. Non-registered firms will not receive addenda notifications. Download the Bid Documents and any Addenda at www.chandleraz.gov/business/vendor-services/capital-projects/construction-bids. It is the contractor's sole responsibility to obtain all addenda from the City website 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 the website for updated information.

PRE-BID CONFERENCE:

July 16, 2024 3:00 p.m. Arizona time	City Council Chambers at 88 E. Chicago Street, Chandler AZ 85225.
--	---

SOLICITATION QUESTIONS DUE DATE:

July 19, 2024 5:00 p.m. Arizona time	All solicitation questions must be emailed to raquel.diaz@chandleraz.gov with the subject line of " ST1804.401; CHN-0(244)D; T0203 01C CHANDLER HEIGHTS ROAD GILBERT ROAD TO VAL VISTA DRIVE BID QUESTION ". Questions received after the due date and time will NOT be considered.
--	--

BID SUBMISSION:

August 8, 2024 3:00 p.m. Arizona time	<p>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 South Atrium Conference Room. Bids received after the due date and time will be returned unopened without consideration.</p> <p>All bids must be submitted in a sealed envelope plainly marked as follows:</p> <p>BID OF _____, CONTRACTOR</p> <p>FOR: <i>CHANDLER HEIGHTS ROAD – GILBERT ROAD TO VAL VISTA DRIVE</i> <i>CITY PROJECT NO.: ST1804.401</i> <i>FEDERAL PROJECT NO.: CHN-0(244)D; ADOT PROJECT NO. T0203 01C</i></p>
---	--

Work under this Agreement includes widening to at least four thru lanes; turn lanes; bike lanes; raised landscaped median; curb, gutter, and sidewalk, including ADA upgrades; traffic signals; LEG streetlights; storm drainage; irrigation; wet utilities, including rehabilitation; and dry utilities, including extension of fiber. This is a federally funded project using FHWA funds. Work must be completed within 365 consecutive calendar days from the Notice to Proceed. The Engineer's Estimate range is \$11,000,000 - \$13,000,000.

This is a Federal Funded Project with DBE requirements. Full Environmental Report is available upon request. Mitigation Measures are not subject to change without prior written approval from the Federal Highway Administration.

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 3, 2024 July 10, 2024 Arizona Republic AFFIDAVIT OF PUBLICATION
-----------------	---

BID SUBMITTAL LIST

This list may not include all required bid submission items. It is the Contractor's responsibility to read the entire bid and determine all items required by the submission date and time.

DO NOT DOUBLE-SIDE ANY PART OF THE BID SUBMITTAL

PROJECT NAME: **CHANDLER HEIGHTS ROAD
GILBERT ROAD TO VAL VISTA DRIVE**

CITY PROJECT NO.: **ST1804.401**
FEDERAL PROJECT NO.: **CHN-0(244)D**
ADOT PROJECT NO.: **T0203 01C**

*****THIS IS A FEDERAL FUNDED PROJECT*****

PLEASE INCLUDE THE FOLLOWING ITEMS IN YOUR SUBMITTAL ACCORDING TO THE DATE AND TIME LISTED IN THE INVITATION TO BID ADVERTISEMENT:

- A. Bid Bond (Original – with Seal)
- B. Signed Proposal Acknowledgement, and licenses
- C. Bid Schedule
- D. Subcontractor's List Form
- E. Certificate of Insurability and Bonding
- F. Arizona Department of Revenue Privilege Tax License

FEDERAL DOCUMENTS REQUIRED (see Federal Document Section)

- 1. Federal Non-Collusion Bidding Certificate
- 2. Verifications Statement
- 3. EEO Clause / Statement
- 4. DBE Form 3102C – DBE Goal Assurance (if DBE goal applies)

FEDERAL DOCUMENTS REQUIRED TO BE SUBMITTED BY THE 5TH DAY POST BID OPENING DAY, BY 4PM IN ORDER FOR BID TO BE CONSIDERED, TO EMAIL ADDRESS:

CP.FUND@CHANDLERAZ.GOV (see Federal Document Section). *Do not submit with bid*

1. On-Line DBE BECO Bidders/Proposers List Email Confirmation (do not forward email)
2. DBE Form 3106C (if applicable) or (if DBE goal applies)
3. DBE Form 3105C (one for each Committed DBE Subcontractor) (if applicable) or (if DBE goal applies)

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, _____, (hereinafter "Principal"), as Principal, and _____, (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____, with its principal offices in _____, 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 _____, (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:

CHANDLER HEIGHTS ROAD - GILBERT ROAD TO VAL VISTA DRIVE
City Project No.: ST1804.401
Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C

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 _____ day of _____, 20 _____

Principal SEAL

SURETY SEAL

By: _____

By: _____
Attorney-in-Fact

Its: _____

AGENCY OF RECORD

AGENCY ADDRESS

CITY OF CHANDLER
CHANDLER, ARIZONA

CHANDLER HEIGHTS ROAD – GILBERT ROAD TO VAL VISTA DRIVE

City Project No.: ST1804.401

Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C

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 **365** 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
_____	_____	_____	_____
_____	_____	_____	_____

PROPOSAL ACKNOWLEDGEMENT

THIS BID IS SUBMITTED BY: _____,
a corporation organized under the laws of the State of _____; a
partnership consisting of _____;
or individual trading as _____
and is the holder of an Arizona State Contractor's License: _____

ATTACH PHOTOCOPY

Classification _____ No. _____

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,

Firm

Federal Tax ID Number

Address

City, State and Zip Code

Phone

By (Signature Required)

Name and Title (Print)

Email Address

NAME OF BIDDER: _____

**CHANDLER HEIGHTS ROAD IMPROVEMENTS (GILBERT RD TO VAL VISTA DR)
CITY PROJECT NO. ST1804.401; FEDERAL NO. CHN-0(244)D; ADOT NO. T0203 01C**

T0203 01C- ST1804.401 CHANDLER HEIGHTS ROAD IMPROVEMENTS - BID SCHEDULE

Last Updated

3/5/2024

NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	EXTENDED PRICE
1	CONSTRUCTION SURVEYING AND LAYOUT	LS	1		
2	GPS DATA COLLECTION (ERSI - ARCGIS GEODATABASE FORMAT)	LS	1		
3	CONTRACTOR QUALITY CONTROL	LS	1		
4	EROSION CONTROL (SWPPP PREPARATION, INSTALLATION, MAINTENANCE, AND REMOVAL)	LS	1		
5	MOBILIZATION/DEMObILIZATION	LS	1		
6	CLEARING & GRUBBING	LS	1		
7	REMOVE TREE, DIAMETER > 12 IN	EA	25		
8	CONSTRUCT BERM	CY	65		
9	EARTHWORK FOR RETENTION BASINS	CY	450		
10	RIPRAP, D50=6 IN, T=12 IN	CY	5		
11	SUBGRADE PREPARATION	SY	16,322		
12	AGGREGATE BASE, 4 IN THICK (APN 304-81-037C)	SY	348		
13	AGGREGATE BASE, 5 IN THICK	SY	393		
14	AGGREGATE BASE, 12 IN THICK	SY	16,322		
15	ASPHALTIC CONCRETE PAVEMENT (2 IN SURFACE COURSE, A-12.5 EVAC)	SY	61,791		
16	ASPHALTIC CONCRETE PAVEMENT (3 IN SURFACE COURSE, A-12.5 EVAC)	SY	393		
17	ASPHALTIC CONCRETE PAVEMENT (3 IN BASE COURSE, A-19 EVAC)	SY	16,322		
18	PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) 9 IN THICK	SY	14		
19	BITUMINOUS TACK COAT SS-1H, DILUTED	SY	61,791		
20	SURFACE SEAL	SY	12,740		
21	VERTICAL CURB & GUTTER, TYPE A, H=6 IN, MAG DET 220-1	LF	3,731		
22	SINGLE CURB, TYPE A, MAG DET 222	LF	3,065		
23	END OF MEDIAN RAMP, CITY DET C-225	EA	6		
24	CONCRETE HEADER (6 IN)	LF	24		
25	CONCRETE SIDEWALK, MAG DET 230	SF	17,064		
26	CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-257	EA	1		
27	CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-258	EA	20		
28	DRIVEWAY ENTRANCE, MAG DET 250-2, RESIDENTIAL	SF	2,949		
29	CONCRETE APRON AND VALLEY GUTTER, MAG DET 240	SF	3,844		
30	INTERLOCKING CONCRETE PAVERS	SY	154		
31	REINSTALL PAVER DRIVEWAY (APN 304-81-221C)	SF	272		
32	REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND COVER PER COC DTL C-400 AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'	EA	23		
33	ADJUST VALVE BOX & COVER, MAG DET 391-1, 391-2 AND CITY DET C-307 AND C-317	EA	16		
34	ADJUST VALVE BOX & COVER (NON-CITY UTILITY)	EA	2		
35	REMOVE PIPE, BACKFILL & COMPACT, VARIOUS TYPES AND SIZES	LF	248		
36	REMOVE ASPHALTIC CONCRETE PAVEMENT	SY	14,733		
37	MILL AND REMOVE BITUMINOUS PAVEMENT, 2 IN	SY	45,469		
38	REMOVE IRRIGATION STRUCTURE	EA	5		
39	REMOVE CONCRETE CURB AND GUTTER	LF	706		
40	REMOVE CONCRETE DITCH & BACKFILL	LF	311		
41	REMOVE CONCRETE SIDEWALK, DRIVEWAYS, AND SLABS	SF	4,526		
42	REMOVE VALLEY GUTTER	SF	2,032		
43	REMOVE AND SALVAGE PAVERS (APN 304-81-221C)	SF	400		

T0203 01C- ST1804.401 CHANDLER HEIGHTS ROAD IMPROVEMENTS - BID SCHEDULE

Last Updated

3/5/2024

NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	EXTENDED PRICE
44	REMOVE DIRECT BURY POLE AND MAST ARM	EA	47		
45	REMOVE EXISTING HPS FIXTURE	EA	4		
46	REMOVE AND SALVAGE SIGN ASSEMBLY	EA	14		
47	REMOVE FENCE	LF	1,034		
48	REMOVE WALL	LF	386		
49	REMOVE AND SALVAGE EXISTING WROUGHT IRON GATE (APN 304-81-221C)	LS	1		
50	REMOVE EXISTING DECORATIVE WALL, REMOVE AND SALVAGE EXISTING LIGHT FIXTURE AND CURVED WROUGHT IRON VIEW FENCE (APN 304-81-221C)	LF	30		
51	REMOVE AND SALVAGE TRAFFIC SIGNALS	EA	1		
52	REMOVE AND RELOCATE MAILBOX	EA	6		
53	REMOVE AND REINSTALL SIGN	EA	20		
54	TRAFFIC CONTROL	LS	1		
55	UNIFORMED OFF-DUTY LAW ENFORCEMENT OFFICER	HR	1,500		
56	SURVEY MARKER, TYPE A, MAG DET 120	EA	3		
57	METAL FENCE (MATCH-IN-KIND) (APN 304-75-013B)	LF	12		
58	LANDSCAPE ESTABLISHMENT - NINETY (90) DAYS	LS	1		
59	SHRUBS - 1 GAL	EA	267		
60	SHRUBS - 5 GAL	EA	65		
61	TREE- 48 IN BOX, 3 IN CAL MIN.	EA	21		
62	DECOMPOSED GRANITE, 1 1/4 IN SCREENED, DESERT GOLD	SY	5,340		
63	DECOMPOSED GRANITE, 1/4 IN MINUS, EXPRESS CARMEL	SY	396		
64	DECOMPOSED GRANITE (TO MATCH EXISTING)	SY	772		
65	DECOMPOSED GRANITE, 1/2 IN SCREENED, EXPRESS ROSE	SY	323		
66	LANDSCAPE / IRRIGATION RESTORATION	SY	43		
67	SCH. 40 PVC IRRIGATION PIPE SLEEVE 2 IN	LF	445		
68	CLASS 200 PVC IRRIGATION PIPE 3/4 IN	LF	1,034		
69	CLASS 200 PVC IRRIGATION PIPE 1 IN	LF	1,551		
70	SCH. 40 PVC IRRIGATION PIPE 2 IN	LF	40		
71	WATER METER (1 IN LANDSCAPE IRRIGATION SERVICE)	EA	2		
72	1 IN BACKFLOW PREVENTION UNIT (REDUCED PRESSURE)	EA	2		
73	1 IN MASTER VALVE	EA	2		
74	CONTROLLER, AUTOMATIC (8 STA TO 24 STA)	EA	2		
75	1 IN REMOTE CONTROL VALVE, ELECTRIC	EA	4		
76	FLUSH END ASSEMBLY (DRIP)	EA	20		
77	MULTI OUTLET EMITTER ASSEMBLY	EA	132		
78	REMOVE PAINT STRIPE	LF	1,470		
79	4 IN WHITE TRAFFIC PAINT STRIPE	LF	50,688		
80	4 IN YELLOW TRAFFIC PAINT STRIPE	LF	3,760		
81	PAINT MEDIAN NOSE	EA	1,491		
82	4 IN WHILE THERMOPLASTIC TRAFFIC STRIPE	LF	14,500		
83	THERMOPLASTIC/PREFORMED SYMBOL BIKE LANE MARKING SET	EA	32		
84	THERMOPLASTIC/PREFORMED SYMBOL LEFT TURN ARROW	EA	22		
85	THERMOPLASTIC/PREFORMED SYMBOL RIGHT TURN ARROW	EA	14		
86	REFLECTORIZED RAISE PAVEMENT MARKER (TYPE G, CLEAR, 1-WAY)	EA	700		
87	REFLECTORIZED RAISE PAVEMENT MARKER (TYPE D, YELLOW, 2-WAY)	EA	60		
88	REFLECTORIZED RAISE PAVEMENT MARKER (TYPE H, YELLOW, 1-WAY)	EA	120		
89	PERFORATED SIGN POST	LF	200		
90	PERFORATED SIGN POST FOUNDATION	EA	19		
91	FLAT SHEET ALUMINUM PANEL, HIGH INTENSITY GRADE	SF	155		

T0203 01C- ST1804.401 CHANDLER HEIGHTS ROAD IMPROVEMENTS - BID SCHEDULE

Last Updated

3/5/2024

NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	EXTENDED PRICE
92	NO. 7 PULL BOX	EA	6		
93	NO. 7 PULL BOX W/EXTENSION	EA	11		
94	NO. 9 PULL BOX	EA	3		
95	SPLIT NO. 9 PULL BOX	EA	2		
96	PULL BOX, SRP LIGHTING PULL BOX (CONTRACTOR SUPPLIED AND INSTALLED)	EA	17		
97	SCH. 40 PVC ELECTRICAL CONDUIT, 1 IN	LF	285		
98	SCH. 40 PVC ELECTRICAL CONDUIT, 2 IN	LF	50		
99	SCH. 40 PVC ELECTRICAL CONDUIT, 2.5 IN (STREET LIGHTING PER SRP PLANS)	LF	2,900		
100	SCH. 40 PVC ELECTRICAL CONDUIT, 3 IN	LF	120		
101	SCH. 40 PVC ELECTRICAL CONDUIT, 4 IN	LF	1,040		
102	4 - 2 IN PVC INTERCONNECT CONDUIT	LF	30		
103	4 - 2 IN HDPE INTERCONNECT CONDUIT (DIRECTIONAL DRILL)	LF	7,150		
104	SRP UNDERGROUND CONVERSION	LF	3,180		
105	POLE FOUNDATION, TYPE A	EA	4		
106	POLE FOUNDATION, TYPE RC	EA	4		
107	VIDEO DETECTION SYSTEM (CAMERA)	EA	1		
108	TYPE A SIGNAL POLE	EA	4		
109	TYPE RC SIGNAL POLE	EA	4		
110	AUDIBLE PEDESTRIAN PUSH BUTTON WITH SIGN	EA	8		
111	20 FT MAST ARM (TAPERED)	EA	4		
112	45 FT MAST ARM (TAPERED)	EA	1		
113	55 FT MAST ARM (TAPERED)	EA	3		
114	CONTROL CABINET	EA	1		
115	CONTROL CABINET FOUNDATION	EA	1		
116	OPTICOM PRE-EMPTION UNIT	EA	4		
117	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)	EA	12		
118	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)	EA	4		
119	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)	EA	4		
120	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)	EA	4		
121	SIGN ASSEMBLY (IISNS)	EA	4		
122	TRAFFIC SIGNAL (FLASHING YELLOW ARROW FACE) (LED)	EA	8		
123	TRAFFIC SIGNAL FACE (TYPE F) (LED)	EA	12		
124	TRAFFIC SIGNAL FACE (PEDESTRIAN) (MAN/HAND) (LED)	EA	8		
125	STREET LIGHT POLE FOUNDATION, FOR SL-1 POLE	EA	59		
126	STREET LIGHT POLE, SL-1 WITH SINGLE DAVIT ARM	EA	59		
127	LED STREET LIGHT LUMINAIRE, TYPE II	EA	73		
128	LED LUMINAIRE (TRAFFIC SIGNAL)	EA	4		
129	CONDUCTORS (SIGNALS AND SIGNAL LIGHTING)	LS	1		
130	FIBER OPTIC CABLE (SINGLE MODE 12)	LF	20		
131	FIBER OPTIC CABLE (SINGLE MODE 144)	LF	10,340		
132	UNDERGROUND FIBER OPTIC SPLICE CLOSURE	EA	3		
133	FIBER OPTIC TERMINATION PANEL (12 PORT)	EA	1		
134	CCTV CAMERA AND FIELD EQUIPMENT	EA	1		
135	FIELD HARDENED ETHERNET SWITCH	EA	1		
136	CONCRETE SCUPPER, CITY DET C-500, W=8 FT	EA	1		
137	CONCRETE SPILLWAY, CITY DET C-500, W=8.5 FT	LF	37		
138	CATCH BASIN, MAG DET 533-1, TYPE D, ONE 3 FT WING	EA	1		
139	CATCH BASIN, MAG DET 533-1, TYPE D, TWO 3 FT WINGS	EA	5		

T0203 01C- ST1804.401 CHANDLER HEIGHTS ROAD IMPROVEMENTS - BID SCHEDULE

Last Updated

3/5/2024

NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	EXTENDED PRICE
140	CONCRETE MASONRY WALL (FULL WALL)	LF	1,169		
141	CONCRETE MASONRY WALL (PARTIAL WALL VIEW FENCE)	LF	425		
142	CONCRETE MASONRY WALL (FULL WALL WITH DOOLEY FOUNDATION)	LF	96		
143	RE-INSTALL EXISTING WROUGHT IRON SWINGING GATE (APN 304-81-221C)	LS	1		
144	RECONSTRUCT DECORATIVE WALL, MATCH-IN-KIND (APN 304-81-221C)	LS	1		
145	CONCRETE LINED (IRRIGATION) DITCH WITH 1 FT BOTTOM	LF	164		
146	SAWCUT DITCH AT TIE-IN	EA	1		
147	PROVIDE DITCH TERMINATION (HAND PLACED)	EA	1		
148	IRRIGATION VALVE, 12 IN WITH CONCRETE SCOURING BASIN PER MAG STD DTL 506	EA	4		
149	HEADWALL, MAG DET 502-1 (PRIVATE IRRIGATION)	EA	2		
150	STEEL CASING PIPE SLEEVE, 54 IN DIA.	LF	18		
151	6 IN DUCTILE IRON PIPE WATERLINE W/ FITTINGS	LF	67		
152	REMOVE FIRE HYDRANT	EA	1		
153	REMOVE EXISTING FLUSHING PIPE AND METER BOX	EA	2		
154	INSTALL FIRE HYDRANT PER GIL-320	EA	3		
155	8 IN AWWA C-900, CLASS 150 WATERLINE W/ FITTINGS	LF	77		
156	6 IN GATE VALVE WITH BOX & COVER, MAG DET 391-1, TYPE C	EA	2		
157	GATE VALVE BOX AND COVER PER MAG DET 340 AND STAINLESS STEEL TAPPING SLEEVE	EA	1		
158	MAINTENANCE OF PLANT OPERATION (MOPO)	LS	1		
159	CONCRETE PIPE COLLAR FOR 18 IN PIPE, MAG DET 505	EA	1		
160	CONCRETE PIPE COLLAR FOR 24 IN PIPE, MAG DET 505	EA	4		
161	12 IN RGRCP, CLASS IV	LF	8		
162	18 IN RGRCP, CLASS IV	LF	139		
163	24 IN RGRCP, CLASS III	LF	298		
164	24 IN RGRCP, CLASS IV	LF	1,225		
165	24 IN RGRCP, CLASS V	LF	109		
166	STORM DRAIN MANHOLE, MAG DET 520 & 522, CITY DET C-400	EA	5		
167	DRYWELL, CITY DET C-501	EA	2		
168	BUBBLE-UP STRUCTURE, CITY DET C-507	EA	1		
169	IRRIGATION JUNCTION BOX, PER DETAIL SHEET PI01	EA	3		
170	IRRIGATION CONTROL GATE, 24 IN WATERMAN C-10	EA	4		
171	ALLOWANCE: ROADWAY AND CONCRETE FLATWORK	AL	1		\$ 150,000.00
172	ALLOWANCE: LANDSCAPING	AL	1		\$ 20,000.00
173	ALLOWANCE: TRAFFIC SIGNAL AND COMMUNICATIONS FACILITIES	AL	1		\$ 25,000.00
174	ALLOWANCE: SRP ELECTRICAL	AL	1		\$ 40,000.00
175	ALLOWANCE: FURNISH AND INSTALL TEMPORARY FENCING	AL	1		\$ 20,000.00
176	ALLOWANCE: WET UTILITIES	AL	1		\$ 25,000.00
177	ALLOWANCE: DRY UTILITIES	AL	1		\$ 40,000.00
178	ALLOWANCE: STORM DRAINAGE	AL	1		\$ 40,000.00
179	ALLOWANCE: REMOVALS	AL	1		\$ 20,000.00
180	ALLOWANCE: RWCD & PRIVATE IRRIGATION	AL	1		\$ 20,000.00
BASE BID TOTAL (ITEMS 1 THRU 180 INCLUSIVE)					

SUBCONTRACTOR'S LIST FORM

CHANDLER HEIGHTS ROAD - GILBERT ROAD TO VAL VISTA DRIVE

City Project No.: ST1804.401

Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C

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:		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:	

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:	\$	Overall Bid Total:	\$
Overall Prime Contractor Self-performance %:			

NON-COLLUSION BIDDING CERTIFICATION

(STATE OF)
 ss.
 (COUNTY OF)

I, _____ of the City of _____,
 in the County of _____ and the State of _____, of full age,
 being duly sworn according to the law of my oath depose and say that:

I am _____ a, _____
(Name) (Title, Position, etc.)

of the firm of _____, the Bidder making the Bid for City of Chandler, **CHANDLER HEIGHTS ROAD – GILBERT ROAD TO VAL VISTA DRIVE, City Project No.: ST1804.401; Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C** 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)

(Printed or Typed Name of Bidder)

Sworn to before me this _____ day of _____, 20_____, in the County
 of _____,

_____ , State of _____.

(Notary Public)

CERTIFICATE OF INSURABILITY AND BONDING

I hereby certify that as Bidder to City of Chandler, **CHANDLER HEIGHTS ROAD – GILBERT ROAD TO VAL VISTA DRIVE, City Project No.: ST1804.401; Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C**, 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

Title

Date

**ARIZONA DEPARTMENT OF REVENUE
PRIVILEGE TAX LICENSE**

**CHANDLER HEIGHTS ROAD
GILBERT ROAD TO VAL VISTA DRIVE**

**City Project No.: ST1804.401
Federal Project No.: CHN-0(244)D
ADOT Project No.: T0203 01C**

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

SUBCONTRACTOR'S LIST FORM

CHANDLER HEIGHTS ROAD - GILBERT ROAD TO VAL VISTA DRIVE

City Project No.: ST1804.401

Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C

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:		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:	

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:	\$	Overall Bid Total:	\$
Overall Prime Contractor Self-performance %:			

CERTIFICATE OF INSURABILITY AND BONDING

I hereby certify that as Bidder to City of Chandler, **CHANDLER HEIGHTS ROAD – GILBERT ROAD TO VAL VISTA DRIVE, City Project No.: ST1804.401; Federal Project No.: CHN-0(244)D; ADOT Project No.: T0203 01C**, 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

Title

Date

**ARIZONA DEPARTMENT OF REVENUE
PRIVILEGE TAX LICENSE**

**CHANDLER HEIGHTS ROAD
GILBERT ROAD TO VAL VISTA DRIVE**

**City Project No.: ST1804.401
Federal Project No.: CHN-0(244)D
ADOT Project No.: T0203 01C**

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



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

CONSTRUCTION AGREEMENT

**CHANDLER HEIGHTS ROAD
GILBERT ROAD TO VAL VISTA DRIVE**

**CITY PROJECT NO.: ST1804.401
FEDERAL PROJECT NO.: CHN-0(244)D
ADOT PROJECT NO.: T0203 01C**

MAYOR

Kevin Hartke

VICE MAYOR

OD Harris

COUNCIL

**Matt Orlando Christine Ellis
Mark Stewart Angel Encinas Jane Poston**

**Daniel Haskins, P.E.
CIP City Engineer**

CITY OF CHANDLER, ARIZONA

CHANDLER HEIGHTS ROAD - GILBERT ROAD TO VAL VISTA DRIVE

CITY PROJECT NO.: ST1804.401

FEDERAL PROJECT NO.: CHN-0(244)D; ADOT PROJECT NO.: T0203 01C

TABLE OF CONTENTS

ARTICLE 1 - PARTICIPANTS AND PROJECT..... C-2

ARTICLE 2 - AGREEMENT DOCUMENTS C-4

ARTICLE 3 - CONSTRUCTION SERVICES..... C-4

ARTICLE 4 - CITY RESPONSIBILITIES..... C-4

ARTICLE 5 - AGREEMENT TIME C-6

ARTICLE 6 - AGREEMENT PRICE C-7

ARTICLE 7 - PAYMENT C-7

ARTICLE 8 - CHANGES TO THE AGREEMENT C-7

ARTICLE 9 - SUSPENSION AND TERMINATION C-7

ARTICLE 10 - INSURANCE AND BONDS..... C-7

ARTICLE 11 - INDEMNIFICATION..... C-8

ARTICLE 12 - DISPUTE RESOLUTION C-8

ARTICLE 13 - FORCED LABOR OF ETHNIC UYGHURS PROHIBITED C-8

EXHIBIT A – PROJECT SPECIFIC SPECIAL PROVISIONS..... SP-1

EXHIBIT B – GENERAL CONDITIONS..... GC-1

EXHIBIT C – TECHNICAL SPECIFICATIONS..... TS-1

EXHIBIT D – GIS / GPS DATA DELIVERY REQUIREMENTS (IF APPLICABLE)GIS-1

EXHIBIT E – FEDERAL PROVISIONS (IF APPLICABLE)..... FP-1

EXHIBIT F – SUBCONTRACTOR DOCUMENTS WITH CONTRACTOR (IF APPLICABLE)... SUB-1

CONSTRUCTION SERVICES AGREEMENT

CITY PROJECT NO.: ST1804.401

FEDERAL PROJECT NO.: CHN-0(244)D; ADOT PROJECT NO.: T0203 01C

This Agreement ("Agreement") is made and entered into on the ____ day of _____, 202____, by and between City of Chandler, an Arizona municipal corporation, hereinafter called "City" and **INSERT CONTRACTOR NAME** 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: Scott Riter
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
Phone: 480-782-3328 Email: scott.riter@chandleraz.gov

Contractor: Legal Company Name: _____

Mailing Address: _____

Physical Address: _____

Arizona Roc No.: _____

Federal Tax Id No.: _____

State Where Organized: _____

Business Organization: _____

Statutory Agent Name: _____

Statutory Agent Mailing Address: _____

Statutory Agent Physical Address: _____

Contractor's Authorized Project Representative:

Name: _____

Title: _____

Phone: _____

Email: _____

PROJECT DESCRIPTION:

This project will improve Chandler Heights Road from Gilbert Road to Val Vista Drive including widening to at least four thru lanes; turn lanes; bike lanes; raised landscaped median; curb, gutter, and sidewalk, including ADA upgrades; traffic signals; LEG streetlights; storm drainage; irrigation; wet utilities, including rehabilitation; and dry utilities, including extension of fiber. **This is a federally funded project using FHWA funds.**

PROJECT LOCATION:

Chandler Heights Road from Gilbert Road to Val Vista Drive.

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.

- 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.

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 **365** Calendar Days (including Substantial Completion by **305** Calendar Days and Final Acceptance by **365** 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.

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.

5.2.2 Work must be completed to meet the following milestones after the Notice to Proceed:

	<u>Milestone</u>		<u>Time</u>	<u>Liquidated damages for delay</u>	
1.	n/a	within	n/a	n/a	per calendar day

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.

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 \$_____.

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.

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 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

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

"CITY" CITY OF CHANDLER

"CONTRACTOR"

MAYOR

Signature Date

RECOMMENDED BY:

Print Name

Daniel Haskins, P.E.
CIP City Engineer

Title

APPROVED AS TO FORM:

Signer Email Address

City Attorney

ATTEST:

City Clerk Seal

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.

EXHIBIT B

GENERAL CONDITIONS



GENERAL CONDITIONS

Approved date: July 20, 2022

TABLE OF CONTENTS

SECTION 1 - SCOPE OF THESE GENERAL CONDITIONS..... 3

SECTION 2 - GENERAL DEFINITIONS 3

SECTION 3 - STANDARD SPECIFICATIONS AND DETAILS 7

SECTION 4 - CONTRACTOR’S RESPONSIBILITIES FOR CONSTRUCTION SERVICES 8

SECTION 5 - CITY RESPONSIBILITIES 27

SECTION 6 - AGREEMENT TIME 29

SECTION 7 - AGREEMENT PRICE..... 35

SECTION 8 - PAYMENT 35

SECTION 9 - CHANGES TO THE AGREEMENT 40

SECTION 10 - SUSPENSION AND TERMINATION 43

SECTION 11 - INSURANCE AND BONDS 44

SECTION 12 - INDEMNIFICATION 50

SECTION 13 - DISPUTE RESOLUTION..... 50

SECTION 14 - MISCELLANEOUS PROVISIONS..... 50

SECTION 15 - PROVISIONS APPLICABLE SOLELY TO GMP AND COST-BASED AGREEMENTS, CHANGE ORDERS, AND JOB ORDERS 58

SECTION 16 - PROVISIONS APPLICABLE SOLELY TO JOB ORDER AGREEMENTS (JOC) 61

SECTION 17 - PROVISIONS APPLICABLE SOLELY TO PRE-CONSTRUCTION SERVICES FOR CONSTRUCTION MANAGER AT RISK..... 66

SECTION 18 - APPENDICESAPP-1 of 30

- 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**

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

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

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

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

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>.

- 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.

- 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

- 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

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.

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

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 or 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.

- 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

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.

- 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

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 is 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

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.

- 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, underpinning, 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

- 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

- 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.

- 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 timetable 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.

- 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.

- 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

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,

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.

- 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.

- 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,

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.

- 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.

- 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

- 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

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

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

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

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.
- 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 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 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 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;
- 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 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 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 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;
- 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.

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

The insurance must provide coverage for the following risks:

- a. 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.
- b. 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.
- c. 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 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 required 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.

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 "Indemnitor") must indemnify, save, and hold harmless the City and its officers, officials, agents, and employees (collectively "Indemnitee") 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 Indemnitee from and against any and all Claims, except those arising solely from Indemnitee'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 Indemnitee 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.

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.
- 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 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.

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**

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.

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, 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 in termination of the Agreement and possible debarment from 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.

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 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.

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,

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

- 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 on 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

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**

- 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.

- 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 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

- 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 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, 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

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

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.

- 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

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.

- 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 Supplier(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.

- 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.

- 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 from 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

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.

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.

General Conditions Appendices

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

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.

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:

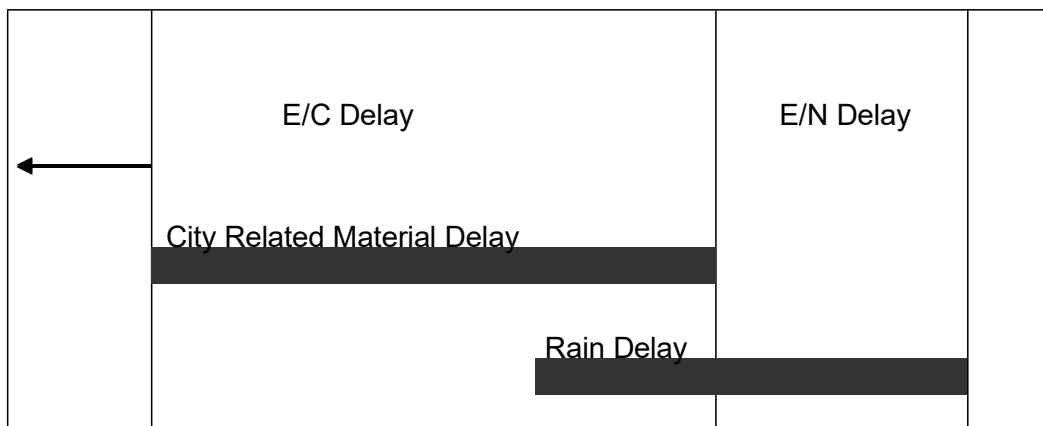
When two or more delays occur simultaneously or overlap, each delay is analyzed separately to determine its impact on the overall project completion date based on when that delay started. Once again, only those delays which actually extend the Agreement completion time are considered as delays. The concurrent delay is considered an additional delay only to the extent it prolongs

General Conditions Appendix 1

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 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.

General Conditions Appendix 1

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 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-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

General Conditions Appendix 1

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.
- 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).

General Conditions Appendix 1

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 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

General Conditions Appendix 1

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.
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).

General Conditions
Appendix 1

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 claim for delay or impact damages be considered after submission by the Contractor of the Final Payment Request.

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.

General Conditions Appendix 2

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.

General Conditions Appendix 2

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 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.

COST REDUCTION INCENTIVE PROPOSAL FORM

TO: CIP City Engineer

FROM:

PROJECT NAME: [TITLE]

CITY PROJECT NUMBER: [#####]

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:

**CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT**

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona
Date _____

Project Name: [TITLE]
City Project No.: [#####]

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

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 [TITLE], [####] 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__.

AGENT OF RECORD

PRINCIPAL SEAL

By _____

SURETY SEAL

AGENT ADDRESS

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 [TITLE], [####] 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__.

AGENT OF RECORD

PRINCIPAL SEAL

By _____

SURETY SEAL

AGENT ADDRESS

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.

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

General Conditions
Appendix 6

such additional memoranda, information and/or documentation, as the 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.



**CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT**

CERTIFICATE OF COMPLETION

PROJECT NAME:	[TITLE]		
CITY PROJECT NO.:	[#####]		
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 AGREEMENT UNDER THE AGREEMENT HAVE BEEN COMPLETED AS OF THE COMPLETION DATE LISTED HERE:

<u>FINAL ACCEPTANCE DATE:</u>	
--------------------------------------	--

PRIME CONTRACTOR:

FIRM NAME:			
PRINCIPAL:			
TITLE:			
SIGNATURE:		DATE:	

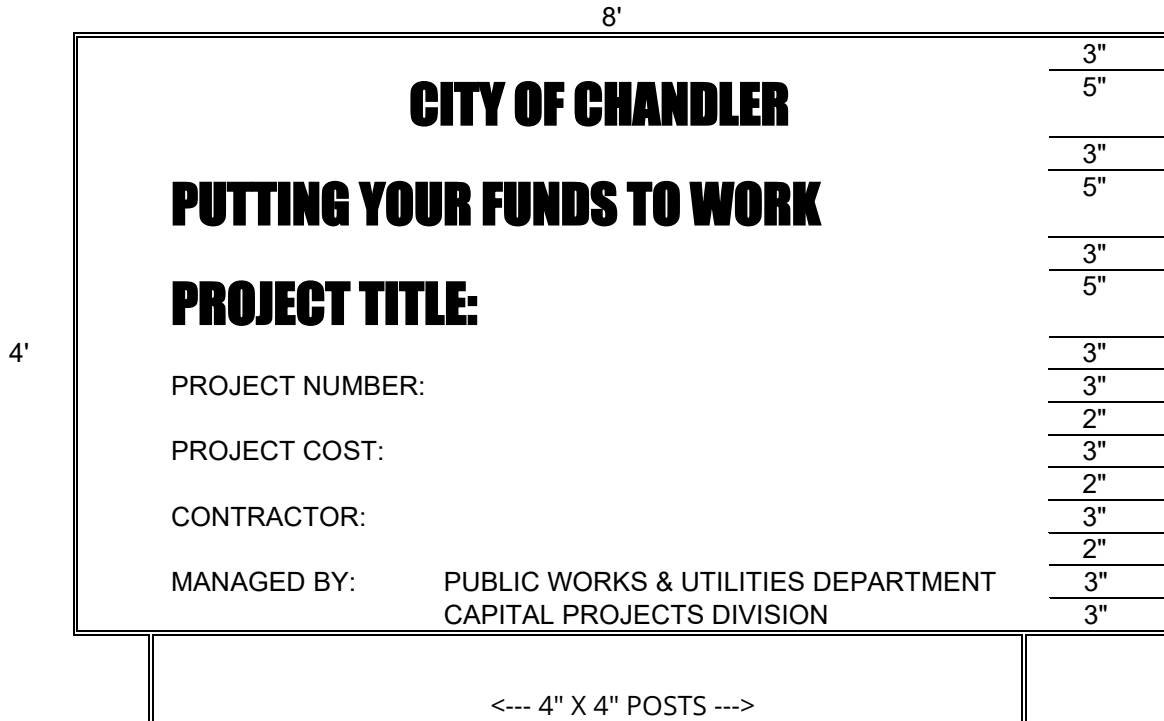
CERTIFIED BY [INSERT NAME AND TITLE OF PARTY THAT OVERSEES CONSTRUCTION]:

FIRM NAME:			
SIGNATURE:		DATE:	

PROJECT ACCEPTED BY CITY OF CHANDLER:

NAME:			
SIGNATURE:		DATE:	

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.

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.

- 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 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 owing 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 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.
- 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.
- 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 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.
- 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

General Conditions Appendix 9 – CM@Risk & JOC

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 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.

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 Granite 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.

General Conditions
Appendix 10

- 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:

<u>Original Size</u>	<u>Replacement Size</u>
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:

<u>Existing Plant Material Sizes</u>	<u>Replacement Size</u>
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.

EXHIBIT C

TECHNICAL SPECIFICATIONS



CHANDLER HEIGHTS ROAD IMPROVEMENTS

GILBERT ROAD TO VAL VISTA DRIVE

CITY OF CHANDLER PROJECT NO. ST1804.401

FEDERAL PROJECT NO. CHN-0(244D)

ADOT TRACS NO. T0203 01C

TECHNICAL SPECIFICATIONS

PREPARED FOR:

CITY OF CHANDLER
PUBLIC WORKS & UTILITIES
CAPITAL PROJECTS

PREPARED BY:

Kimley»»Horn

7740 N. 16TH STREET, SUITE 300
PHOENIX, AZ 85020

DATE: JUNE 2024



TABLE OF CONTENTS

PART A: BID ITEMS		6
ITEM NO. 1	CONSTRUCTION SURVEYING AND LAYOUT	6
ITEM NO. 2	GPS DATA COLLECTION (ESRI – ARCGIS GEODATABASE FORMAT)	10
ITEM NO. 3	CONTRACTOR QUALITY CONTROL	13
ITEM NO. 4	EROSION CONTROL (SWPPP PREPERATION, INSTALLATION, MAINTENANCE, AND REMOVAL)	13
ITEM NO. 5	MOBILIZATION/DEMOBILIZATION	13
ITEM NO. 6	CLEARING AND GRUBBING	14
ITEM NO. 7	REMOVE TREE, DIAMETER > 12 IN	14
ITEM NO. 8	CONSTRUCT BERM	15
ITEM NO. 9	EARTHWORK FOR RETENTION BASINS	16
ITEM NO. 10	RIPRAP, D50=6 IN, T=12 IN	17
ITEM NO. 11	SUBGRADE PREPARATION	17
ITEM NO. 12	AGGREGATE BASE, 4 IN THICK (APN 304-81-037C)	18
ITEM NO. 13	AGGREGATE BASE, 5 IN THICK	18
ITEM NO. 14	AGGREGATE BASE, 12 IN THICK	18
ITEM NO. 15	ASPHALTIC CONCRETE PAVEMENT (2 IN SURFACE COURSE, A-12.5 EVAC)	19
ITEM NO. 16	ASPHALTIC CONCRETE PAVEMENT (3 IN SURFACE COURSE, A-12.5 EVAC)	19
ITEM NO. 17	ASPHALTIC CONCRETE PAVEMENT (3 IN BASE COURSE, A-19 EVAC)	19
ITEM NO. 18	PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) 9 IN THICK	20
ITEM NO. 19	BITUMINOUS TACK COAT SS-1H, DILUTED	21
ITEM NO. 20	SURFACE SEAL	22
ITEM NO. 21	VERTICAL CURB & GUTTER, TYPE A, H=6 IN, MAG DET 220-1	23
ITEM NO. 22	SINGLE CURB, TYPE A, MAG DET 222	23
ITEM NO. 23	END OF MEDIAN RAMP, CITY DET C-225	23
ITEM NO. 24	CONCRETE HEADER (6 IN)	24
ITEM NO. 25	CONCRETE SIDEWALK, MAG DET 230	25
ITEM NO. 26	CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-25725	25
ITEM NO. 27	CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-25825	25
ITEM NO. 28	DRIVEWAY ENTRANCE, MAG DET. 250-2, RESIDENTIAL	26
ITEM NO. 29	CONCRETE APRON AND VALLEY GUTTER, MAG DET 240	27
ITEM NO. 30	INTERLOCKING CONCRETE PAVERS	27
ITEM NO. 31	REINSTALL PAVER DRIVEWAY (APN 304-81-221C)	28
ITEM NO. 32	REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND COVER PER COC DTL C-400 AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'	29
ITEM NO. 33	ADJUST VALVE BOX & COVER, MAG DET 391-1, 391-2 AND CITY DET C-307 AND C-317	30
ITEM NO. 34	ADJUST VALVE BOX & COVER (NON-CITY UTILITY)	30
ITEM NO. 35	REMOVE PIPE, BACKFILL & COMPACT, VARIOUS TYPES AND SIZES	30
ITEM NO. 36	REMOVE ASPHALTIC CONCRETE PAVEMENT	31
ITEM NO. 37	MILL AND REMOVE BITUMINOUS PAVEMENT, 2 IN	32
ITEM NO. 38	REMOVE IRRIGATION STRUCTURE	33
ITEM NO. 39	REMOVE CONCRETE CURB AND GUTTER	33
ITEM NO. 40	REMOVE CONCRETE DITCH AND BACKFILL	33
ITEM NO. 41	REMOVE CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS	34
ITEM NO. 42	REMOVE VALLEY GUTTER	34
ITEM NO. 43	REMOVE AND SALVAGE PAVERS (APN 304-81-221C)	35

ITEM NO. 44	REMOVE DIRECT BURY POLE AND MAST ARM	35
ITEM NO. 45	REMOVE EXISTING HPS FIXTURE	36
ITEM NO. 46	REMOVE AND SALVAGE SIGN ASSEMBLY	36
ITEM NO. 47	REMOVE FENCE	38
ITEM NO. 48	REMOVE WALL	38
ITEM NO. 49	REMOVE AND SALVAGE EXISTING WROUGHT IRON GATE (APN 304-81-221C)	39
ITEM NO. 50	REMOVE EXISTING DECORATIVE WALL, REMOVE AND SALVAGE EXISTING LIGHT FIXTURE AND CURVED WROUGHT IRON VIEW VENCE (APN 304-81-221c)	40
ITEM NO. 51	REMOVE AND SALVAGE TRAFFIC SIGNALS	40
ITEM NO. 52	REMOVE AND RELOCATE MAILBOX	41
ITEM NO. 53	REMOVE AND REINSTALL SIGN	42
ITEM NO. 54	TRAFFIC CONTROL	43
ITEM NO. 55	UNIFORMED OFF-DUTY LAW ENFORCEMENT OFFICER	44
ITEM NO. 56	SURVEY MARKER, TYPE A, MAG DET 120	45
ITEM NO. 57	METAL FENCE (MATCH-IN-KIND) (APN 304-75-013B)	45
ITEM NO. 58	LANDSCAPE ESTABLISHMENT – NINETY (90) DAYS	46
ITEM NO. 59	SHRUB – 1 GAL	49
ITEM NO. 60	SHRUB – 5 GAL	49
ITEM NO. 61	TREE – 48 IN BOX, 3 IN CAL MIN	49
ITEM NO. 62	DECOMPOSED GRANITE, 1 ¼ IN SCREENED, DESERT GOLD	51
ITEM NO. 63	DECOMPOSED GRANITE, ¼ IN MINUS, EXPRESS CARMEL	51
ITEM NO. 64	DECOMPOSED GRANITE (TO MATCH EXISTING)	51
ITEM NO. 65	DECOMPOSED GRANITE, ½ IN SCREENED, EXPRESS ROSE	51
ITEM NO. 66	LANDSCAPE / IRRIGATION RESTORATION	57
ITEM NO. 67	SCH. 40 PVC IRRIGATION PIPE SLEEVE 2 IN	62
ITEM NO. 68	CLASS 200 PVC IRRIGATION PIPE ¾ IN	63
ITEM NO. 69	CLASS 200 PVC IRRIGATION PIPE 1 IN	63
ITEM NO. 70	SCH. 40 PVC IRRIGATION PIPE 2 IN	63
ITEM NO. 71	WATER METER (1 IN LANDSCAPE IRRIGATION SERVICE)	65
ITEM NO. 72	1 IN BACKFLOW PREVENTION UNIT (REDUCED PRESSURE)	66
ITEM NO. 73	1 IN MASTER VALVE	69
ITEM NO. 74	CONTROLLER, AUTOMATIC (6 STA)	70
ITEM NO. 75	1 IN REMOTE CONTROL VALVE, ELECTRIC	73
ITEM NO. 76	FLUSH END ASSEMBLY (DRIP)	75
ITEM NO. 77	MULTI OUTLET EMITTER ASSEMBLY	76
ITEM NO. 78	REMOVE PAINT STRIPE	79
ITEM NO. 79	4 IN WHITE TRAFFIC PAINT STRIPE	79
ITEM NO. 80	4 IN YELLOW TRAFFIC PAINT STRIPE	79
ITEM NO. 81	PAINT MEDIAN NOSE	80
ITEM NO. 82	4 IN WHITE THERMOPLASTIC TRAFFIC STRIPE	80
ITEM NO. 83	THERMOPLASTIC/PREFORMED SYMBOL BIKE LANE MARKING SET	80
ITEM NO. 84	THERMOPLASTIC/PREFORMED SYMBOL LEFT TURN ARROW	80
ITEM NO. 85	THERMOPLASTIC/PREFORMED SYMBOL RIGHT TURN ARROW	80
ITEM NO. 86	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE G, CLEAR, 1-WAY)	81
ITEM NO. 87	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE D, YELLOW, 2-WAY)	81
ITEM NO. 88	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE H, YELLOW, 1-WAY)	81
ITEM NO. 89	PERFORATED SIGN POST	82
ITEM NO. 90	PERFORATED SIGN POST FOUNDATION	82
ITEM NO. 91	FLAT SHEET ALUMINUM SIGN PANEL, HIGH INTENSITY GRADE	83

ITEM NO. 92	NO. 7 PULL BOX	84
ITEM NO. 93	NO. 7 PULL BOX W/ EXTENSION	84
ITEM NO. 94	NO. 9 PULL BOX	84
ITEM NO. 95	SPLIT NO. 9 PULL BOX	84
ITEM NO. 96	PULL BOX, SRP LIGHTING (CONTRACTOR SUPPLIED AND INSTALLED)	85
ITEM NO. 97	SCH. 40 PVC ELECTRICAL CONDUIT, 1 IN	86
ITEM NO. 98	SCH. 40 PVC ELECTRICAL CONDUIT, 2 IN	86
ITEM NO. 99	SCH. 40 PVC ELECTRICAL CONDUIT, 2 ½ IN (STREETLIGHTING PER SRP PLANS)	86
ITEM NO. 100	SCH. 40 PVC ELECTRICAL CONDUIT, 3 IN	86
ITEM NO. 101	SCH. 40 PVC ELECTRICAL CONDUIT, 4 IN	86
ITEM NO. 102	4 – 2 IN PVC INTERCONNECT CONDUIT	86
ITEM NO. 103	4 – 2 IN HDPE INTERCONNECT CONDUIT (DIRECTIONAL DRILL)	86
ITEM NO. 104	SRP UNDERGROUND CONVERSION	88
ITEM NO. 105	POLE FOUNDATION, TYPE A	89
ITEM NO. 106	POLE FOUNDATION, TYPE RC	89
ITEM NO. 107	VIDEO DETECTION SYSTEM (CAMERA)	90
ITEM NO. 108	TYPE A SIGNAL POLE	92
ITEM NO. 109	TYPE RC SIGNAL POLE	92
ITEM NO. 110	AUDIBLE PEDESTRIAN PUSH BUTTON WITH SIGN	93
ITEM NO. 111	20 FT MAST ARM (TAPERED)	93
ITEM NO. 112	45 FT MAST ARM (TAPERED)	93
ITEM NO. 113	55 FT MAST ARM (TAPERED)	93
ITEM NO. 114	CONTROL CABINET	94
ITEM NO. 115	CONTROL CABINET FOUNDATION	94
ITEM NO. 116	OPTICOM PRE-EMPTION UNIT	95
ITEM NO. 117	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)	97
ITEM NO. 118	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)	97
ITEM NO. 119	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)	97
ITEM NO. 120	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)	97
ITEM NO. 121	SIGN ASSEMBLY (IISNS)	97
ITEM NO. 122	TRAFFIC SIGNAL (FLASHING YELLOW ARROW FACE) (LED)	98
ITEM NO. 123	TRAFFIC SIGNAL FACE (TYPE F) (LED)	98
ITEM NO. 124	TRAFFIC SIGNAL FACE (PEDESTRIAN) (MAN/HAND) (LED)	98
ITEM NO. 125	STREET LIGHT POLE FOUNDATION, FOR SL-1 POLE	102
ITEM NO. 126	STREET LIGHT POLE, SL-1 WITH SINGLE DAVIT ARM	102
ITEM NO. 127	LED STREETLIGHT LUMINAIRE, TYPE II	103
ITEM NO. 128	LED LUMINAIRE (TRAFFIC SIGNAL)	103
ITEM NO. 129	CONDUCTORS (SIGNALS AND SIGNAL LIGHTING)	105
ITEM NO. 130	FIBER OPTIC CABLE (SINGLE MODE 12)	105
ITEM NO. 131	FIBER OPTIC CABLE (SINGLE MODE 144)	105
ITEM NO. 132	UNDERGROUND FIBER OPTIC SPLICE CLOSURE	105
ITEM NO. 133	FIBER OPTIC PATCH PANEL (12 PORT)	113
ITEM NO. 134	CCTV CAMERA AND FIELD EQUIPMENT	114
ITEM NO. 135	FIELD HARDENED ETHERNET SWITCH	116
ITEM NO. 136	CONCRETE SCUPPER, CITY DET C-500, W=8 FT	118
ITEM NO. 137	CONCRETE SPILLWAY, CITY DET C-500, W=8.5 FT	119
ITEM NO. 138	CATCH BASIN, MAG DET 533-1, TYPE D, ONE 3 FT WING	120
ITEM NO. 139	CATCH BASIN, MAG DET 533-1, TYPE D, TWO 3 FT WINGS	120
ITEM NO. 140	CONCRETE MASONRY WALL (FULL WALL)	120
ITEM NO. 141	CONCRETE MASONRY WALL (PARTIAL WALL VIEW FENCE)	120
ITEM NO. 142	CONCRETE MASONRY WALL (FULL WALL WITH DOOLEY FOUNDATION)	120
ITEM NO. 143	RE-INSTALL EXISTING WROUGHT IRON SWINGING GATE (APN 304-81-	120

	221C)	122
ITEM NO. 144	RECONSTRUCT DECORATIVE WALL, MATCH IN-KIND (APN 304-81-221c)	123
ITEM NO. 145	CONCRETE LINED (IRRIGATION) DITCH WITH 1 FT BOTTOM	123
ITEM NO. 146	SAWCUT DITCH AT TIE-IN	124
ITEM NO. 147	CONCRETE DITCH TERMINATION (HAND PLACED)	124
ITEM NO. 148	IRRIGATION VALVE, 12 IN WITH CONCRETE SCOURING BASIN PER MAG DET 506	125
ITEM NO. 149	HEADWALL, MAG DET 502-1 (PRIVATE IRRIGATION)	125
ITEM NO. 150	STEEL CASING PIPE SLEEVE, 54 IN DIA.	126
ITEM NO. 151	6 IN DUCTILE IRON PIPE WATERLINE WITH FITTINGS	126
ITEM NO. 152	REMOVE FIRE HYDRANT	128
ITEM NO. 153	REMOVE EXISTING FLUSHING PIPE AND METER BOX	128
ITEM NO. 154	INSTALL FIRE HYDRANT PER GIL-320	128
ITEM NO. 155	8 IN AWWA C-900, CLASS 150 WATERLINE WITH FITTINGS	128
ITEM NO. 156	6 IN GATE VALVE WITH BOX AND COVER, MAG DET 391-1, TYPE C	130
ITEM NO. 157	GATE VALVE BOX AND COVER PER MAG DET 340 AND STAINLESS-STEEL TAPPING SLEEVE	130
ITEM NO. 158	MAINTENANCE OF PLANT OPERATION (MOPO)	131
ITEM NO. 159	CONCRETE PIPE COLLAR FOR 18 IN PIPE, MAG DET 505	132
ITEM NO. 160	CONCRETE PIPE COLLAR FOR 24 IN PIPE, MAG DET 505	132
ITEM NO. 161	12 IN RGRCP, CLASS IV	133
ITEM NO. 162	18 IN RGRCP, CLASS IV	133
ITEM NO. 163	24 IN RGRCP CLASS III	133
ITEM NO. 164	24 IN RGRCP, CLASS IV	133
ITEM NO. 165	24 IN RGRCP, CLASS V	133
ITEM NO. 166	STORM DRAIN MANHOLE, MAG DTL 520 & 522, CITY DET C-400	134
ITEM NO. 167	DRYWELL, CITY DET C-501	134
ITEM NO. 168	BUBBLE-UP STRUCTURE, COC DET C-507	135
ITEM NO. 169	IRRIGATION JUNCTION BOX, PER DETAIL SHEET Pi01	135
ITEM NO. 170	IRRIGATION CONTROL GATE, 24 IN WATERMAN C-10	136
ITEM NO. 171	ALLOWANCE: ROADWAY AND CONCRETE FLATWORK	137
ITEM NO. 172	ALLOWANCE: LANDSCAPING	137
ITEM NO. 173	ALLOWANCE: TRAFFIC SIGNAL AND COMMUNICATIONS FACILITIES	138
ITEM NO. 174	ALLOWANCE: SRP ELECTRICAL	139
ITEM NO. 175	ALLOWANCE: FURNISH AND INSTALL TEMPORARY FENCING	139
ITEM NO. 176	ALLOWANCE: WET UTILITIES	140
ITEM NO. 177	ALLOWANCE: DRY UTILITIES	141
ITEM NO. 178	ALLOWANCE: STORM DRAINAGE	141
ITEM NO. 179	ALLOWANCE: REMOVALS	142
ITEM NO. 180	ALLOWANCE: RWCD & PRIVATE IRRIGATION	142
	SOILS INFORMATION	143
	ENVIRONMENTAL MITIGATION MEASURES	143
	PERMITS 145	
	COOPERATION WITH UTILITIES	147
	COOPERATION BETWEEN CONTRACTORS AND OTHER AGENCY PROJECTS	151
	NOTIFICATION TO PROPERTY OWNERS	152
	TRAFFIC CONTROL	152

APPENDICES

APPENDIX A – SUBGRADE ACCEPTANCE CHART

APPENDIX B – CITY OF CHANDLER REQUEST FOR PUBLIC RECORDS

APPENDIX C – ESRI GPS DATA DICTIONARY

APPENDIX D – GEOTECHNICAL REPORT

APPENDIX E – WESTERN BURROWING OWL AWARENESS FLYER

PART A: BID ITEMS

The following items, though not a comprehensive list, are non-payment items being considered incidental to the project, the costs of which are to be included within other bid items:

- Saw cutting
- Locating (or pothole) of new or existing utilities
- Concrete curb and gutter transition, MAG Std. Det. 221
- Curb transition, MAG Det. 220-2 and 221
- SWPPP preparation and document maintenance
- Contractor's site office or yard.
- Roadway sweeping
- Any and all permits - preparation costs and permit fees
- Protective fencing or plating for open trenches
- Photographing and videotaping of the project
- Preparation of record drawings
- Crown line
- Temporary pavement as required for all pipeline and underground work
- Removal of existing landscape irrigation pipe, tubing, and equipment

ITEM NO. 1 CONSTRUCTION SURVEYING AND LAYOUT

Description:

The Contractor will furnish all labor, materials, and equipment necessary to perform all surveying, staking, laying out of control lines, and verifications of the accuracy of all existing control points that are delineated in the Contract Documents. The work will be done under the direction of a Registered Land Surveyor (RLS) licensed to practice in the State of Arizona.

Construction Requirements:

Staking Outline: Prior to beginning any survey operations, the Contractor will furnish to the Engineer, for approval, a written outline detailing the method of staking, interval of stakes, marking of stakes, grade control for various courses of materials, referencing, structure control, and any other procedures and controls necessary for survey completion. A part of this outline will also be a schedule that will show the sequencing of the survey and layout work, throughout the course of the contract, listing a percentage of completion for each month.

Field Books: The Contractor will furnish field books to be used for recording survey data and field notes. These books will be available for inspection by the City at any time and will become the property of the City upon completion of the work.

Survey Control Verification: Control Points (horizontal and vertical) -The existence and

location of all survey monuments, bench marks, and control points will be verified prior to demolition or construction activity. Immediately notify the City of Chandler Project Manager when location discrepancies greater than 0.02 foot horizontal or 0.01 foot vertical are found. All datum will be based upon the City of Chandler datum.

Control Lines: Construction control lines with grade breaks, transition points, horizontal and vertical curves, etc., will be established and referenced prior to construction.

Temporary Bench Marks: Temporary bench marks will be established prior to construction, maintained and periodically verified for accuracy throughout the construction phase.

Pre-Construction Location Survey: All existing features will be located prior to construction, referenced to survey monuments along control lines by stationing in accordance with the construction documents and by offset distance from the control lines. All features will be re-locatable after construction. Distances measured will be within 0.01 foot.

Survey monuments: The land surveyor will follow the requirements of A.R.S. § 33-103 when establishing, replacing or setting Public Land System Survey monuments at Section or Quarter Section corners and will follow the requirement in Section 9(C) of the Arizona Boundary Survey Minimum Standards when establishing new or replacement boundary monuments and witness corner monuments. Finally, land surveyors will also comply with the requirements of A.R.S. § 104 through 106 when establishing, replacing or setting any type of boundary monument. Whenever any monuments are established, including those set to replace missing or damaged monuments of a previous survey, those actions require the surveyor to create and record a survey drawing documenting the new monumentation as established.

Water and Sewer Line Appurtenances: Water and sewer line surface appurtenances such as manholes, valves, and cleanouts that lie within the construction area will be located and noted on the Contractor's approved construction documents prior to any demolition or excavation.

Match Points and Removals: Verify the location (horizontal and vertical) of existing facilities to which the project connects. Immediately notify City Representatives when location discrepancies of connecting facilities greater than 0.10 foot horizontal or 0.02 foot vertical are found.

Construction Stakes: The Contractor will set construction stakes and marks establishing lines and grades for road work, curbs, gutters, sidewalks, structures, buildings, centerlines for utilities and necessary appurtenances, and other work as indicated in the Contract Documents and will be responsible for their conformance with the Project Plans and Technical Specifications.

The stakes will be established in accordance with the following guidelines which represent the minimum standard and the Contractor will provide additional stakes and controls necessary to perform the work. The Contractor will be held responsible for the

preservation of all stakes and marks and will replace, at no additional cost to the City, any construction stakes or marks which have been carelessly or willfully destroyed by any party.

(a) Roadway: Subgrade stakes will be set to subgrade elevation at 50 foot intervals on straight sections, 25 foot intervals through vertical curves, on horizontal curves with radius of 600 feet or less, and/or slopes of less than 0.4%, and the beginning and end of horizontal and vertical curves and grade breaks. Stakes will be set at crown lines, at grade break lines, and at edges of pavement which do not abut concrete curb and gutter or at the edge of pavement abutting vertical curbs or other structures whose surface grade will not be flush with the finished pavement grade. Quarter lines will be staked where the distance between the crown line stakes and the curb and gutter face exceeds 20 feet. ABC stakes will be set to ABC elevation at 33 foot intervals on straight sections, 25 foot intervals through vertical curves, on horizontal curves with radius of 600 feet or less, and/or slopes of less than 0.4%, and the beginning and end of horizontal and vertical curves, and grade breaks. Stakes will be set at crown lines, at grade breaks, and at edges of pavement which do not abut concrete curb and gutter or at the edge of pavement abutting vertical curbs or other structures whose surface grade will not be flush with the finished pavement grade. Quarter lines will be staked where the distance between the crown line stakes and the curb and gutter face exceeds 20 feet.

- (1) Where the existing pavement will be milled and inlayed, the Contractor will provide 10-foot grid interval surface control horizontally and vertically.
- (2) Pavement edges will be controlled by utilizing a wire control mechanism or screeding along a concrete gutter or other structure whose surface grade is flush with the finished pavement grade. Stakes will be set to finished elevation at 33 foot intervals on straight sections, 25 foot intervals on curves with radius of 600 feet or less, and/or slopes of less than 0.4%, and the beginning and end of horizontal and vertical curves, and grade breaks.

(b) Sidewalk and Bike Paths: Stakes are not required for sidewalks five feet or less in width which are adjoining existing curb and gutter.

- (1) Sidewalk stakes will be set to grade on an offset and tacked for line at 25 foot intervals at the beginning and end of horizontal and vertical curves and grade breaks.

(c) Storm Sewer and Drainage: All cuts will be to the invert of the pipe, given to the nearest 0.01 of a foot.

- (1) Stakes for storm sewer will be driven flush with the existing ground, set on an offset at 50 foot intervals. Stakes will be marked with the offset and indicated cut.
- (2) Wyes for laterals will be marked with a line only stake.
- (3) Manholes will be marked with the offset and indicated cut to top of manhole

grade and inverts.

- (4) Stakes for storm water inlets, two per inlet, will be set on a line normal to the roadway at the center line of the inlet five and ten feet from the face of curb. The stakes will be marked with the offset to the face of curb and the cut or fill to the top of curb and inverts.
 - (5) Cut sheets will be supplied to the Contractor and City of Chandler Inspector.
- (d) Water:** All cuts will be to the invert of the pipe, given to the nearest 0.10 of a foot.
- (1) Stakes for water will be driven flush with the existing ground, set on an offset at 50 foot intervals and specified grade breaks. Stakes will be marked with the offset and indicated cut.
 - (2) Fittings or other critical points such as tees will be marked with a line only stake.
 - (3) Fire hydrants will be located with two stakes per hydrant set parallel with the roadway five feet from the centerline of the hydrant. The stakes will be marked with the offset to the hydrant and indicated cut to the top of curb at the centerline of the hydrant.
 - (4) Water meters will be located with two stakes per meter set parallel with the roadway five feet from the centerline of the meter. The stakes will be marked with the offset to the meter and indicated cut to the top of curb at the centerline of the meter.
 - (5) Cut sheets will be supplied to the Contractor and City of Chandler Inspector.
- (e) Traffic Signing, Striping and Detector Loops:** The Contractor will delineate the procedures and controls to be utilized in the Staking Outline.
- (f) Inspection and Acceptance of Work:** The City reserves the right to make inspections and random checks of any portion of the staking and layout work. If, in the City's opinion, the work is not being performed in a manner that will assure proper control and accuracy of the work, the City may order any or all of the staking and layout work redone at no additional cost.

Measurement and Payment:

Construction Surveying and Layout will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work as described herein and required to provide all necessary survey stakes and control. The approved schedule showing the sequencing and percentage of the survey and layout work will be the basis on which monthly progress payments will be made. This schedule will be subject to periodic review, at the request of either party, if the survey and layout work lags or accelerates. If necessary, the schedule will be revised to reflect changes in survey and layout progress. When approved, the revised schedule will become the basis for payment.

ITEM NO. 2 GPS DATA COLLECTION (ESRI – ARCGIS GEODATABASE FORMAT)

Description:

This work under this item will consist of furnishing all labor, materials, and equipment necessary to provide survey grade GPS / GIS data meeting the following requirements for all facilities to be owned and/or operated by the City of Chandler.

Construction Requirements:

(a) ESRI File Geodatabase format:

All GPS point data, along with corresponding GIS Attribute data, must be submitted in ESRI File Geodatabase format. The City of Chandler will provide an electronic copy of the File Geodatabase in ESRI ArcGIS format upon submitting the "Request for Public Records" form in Appendix B. All public record requests must be initiated on-line at <https://www.chandleraz.gov/government/departments/development-services/public-records-request>. A copy of the request must be sent to the designated City of Chandler Representative.

(b) Data dictionary and Attribute data:

Attribute data should be provided for each of the GPS'd Utility Feature listed in section 'd' below. All Attribute data should conform to the ESRI File Geodatabase format provided in Appendix C.

(c) Coordinate System:

Horizontal Datum: Arizona State Plane Coordinates, Central Zone NAD83 (HARN)
Vertical Datum: NAVD88.

(d) Point Data for GPS:

- (1) Water System Features:

- (2) Water main location (top of pipe), size and material (one coordinate provided every 100 feet minimum) and at fittings.
- (3) Water fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Other.
- (4) Water valve location (center of valve box cover), size and type.
- (5) Fire hydrant location (top of hydrant), manufacturer and year.
- (6) Water service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- (7) Water blow-off and air release valve location (center of cover), size, type and manufacturer.
- (8) Water manhole or vault location (center of cover), size and type.
- (9) Waste Water System Features:
- (10) Sewer manhole and cleanout location (center of cover), size, material, and cover type.
- (11) Sewer gravity main location (invert of pipe), size, material and flow direction (from) at all manholes, cleanouts and structures.
- (12) Sewer service line location, size and material (at connection to main, and termination at cleanout, or stub out at edge of the easement or ROW).
- (13) Sewer force main location (top of pipe), size, and material (one coordinate provided every 100 feet minimum) and at fittings.
- (14) Sewer force main (and gravity) fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Wye, Other.
- (15) Sewer force main valve location (center of valve box cover), size and type.
- (16) Sewer force main air release valve location (center of cover), size, type and manufacturer.
- (17) Sewer force main manhole or vault location (center of cover), size and material.
- (18) Sewer structure (center of structure), type (diversion, junction box)
- (19) Reclaimed Water System Features:
- (20) Reclaimed main location (top of pipe), size, and material (one coordinate provided every 100 feet minimum) and at fittings.

- (21) Reclaimed fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Other.
- (22) Reclaimed valve location (center of valve box cover), size and type.
- (23) Reclaimed service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- (24) Reclaimed blow-off and air release valve location (center of cover), size, type and manufacturer.
- (25) Reclaimed manhole or vault location (center of cover), size and type.
- (26) Storm Water System Features:
- (27) Storm manhole and cleanout location (center of cover), size, material, and cover type.
- (28) Storm gravity main location (invert of pipe), size, material, and flow direction (from) at all manholes, cleanouts, and structures.
- (29) Storm structure location (center of structure), type and category including:
- (30) Drywell, Catch Basin, Scupper, Bubbler Box, Collection Vault.
- (31) Standard GPS Metadata on all points collected: Date, Time, Height, Horiz_Precision, Vert_Precision, Northing, Easting, Surveyor, Datafile, and Comments

(e) Electronic Data Submittal:

Each submittal must consist of

- (1) ESRI – ArcGIS Geodatabase with cumulative data and attribute, and
- (2) Construction plans with collected utilities clearly redlined
- (3) The frequency of data submittal will be every two weeks after water, sewer, reclaim or storm assets go into the ground. Submittals can be emailed to: GPS@Chandleraz.gov

Measurement and Payment:

GPS Data Collection (ESRI – ArcGIS Geodatabase Format) will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work as described herein, including submittal and acceptance by City of Chandler.

No payment will be made for rejected GPS Point Data.

ITEM NO. 3 CONTRACTOR QUALITY CONTROL

See City of Chandler General Conditions.

ITEM NO. 4 EROSION CONTROL (SWPPP PREPERATION, INSTALLATION, MAINTENANCE, AND REMOVAL)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to prepare the SWPPP plan, furnish, install, maintain and remove (if applicable) erosion control best management practices as specified in the Project Plans and directed by City Representatives.

Materials:

All materials will conform to the requirements of ADOT Standard Specifications. Section 810-2.

Construction Requirements:

All work under this item will be completed in conformance with the Project Plans and all applicable City, County, State, and Federal regulations.

Measurement and Payment:

Erosion Control (SWPPP Preparation, Installation, Maintenance, and Removal) will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work described herein and complete in place.

No payment will be made for rejected best management practices, for maintenance after a storm event, or for damage by the Contractor. No allowance will be made for extra material used in overlapping at splice joints.

ITEM NO. 5 MOBILIZATION/DEMobilIZATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to conform to MAG Uniform Standard Specifications Section 109.10.

Measurement and Payment:

Mobilization/Demobilization will be measured as a single complete unit of work and paid at the contact lump sum price, which price will be full compensation for the work, complete in place.

ITEM NO. 6 CLEARING AND GRUBBING

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to conform to MAG Uniform Standard Specifications Section 201. The Contractor should review the landscape plans to identify trees to be protected in place. The Contractor will clear and grub only the areas required to construct the project improvements.

Construction Requirements:

All work under this item will be completed in conformance with MAG Uniform Standard Specifications Section 201 in its entirety except as modified herein.

Burning of trash, debris, plant material, wood, or any other waste material will not be allowed.

Measurement and Payment:

Clearing and Grubbing will be measured as a single complete unit of work and paid at the contact lump sum price, which price will be full compensation for the work, complete in place. No separate measurement will be made for trees 12 inches or less in diameter at 1-foot above the original ground surface.

ITEM NO. 7 REMOVE TREE, DIAMETER > 12 IN

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to remove and dispose of existing trees more than 12 inches in diameter, including roots and stumps from the project area, as shown on the Project Plans, in accordance with the requirements of MAG Uniform Standard Specifications Section 201 in its entirety except as modified herein.

Construction Requirements:

All tree removal personnel will have a minimum of one-year experience in large tree removal and be supervised at all times by a foreman with a minimum of two years' experience. Background information on all personal associated with this task, along with references that will verify experience, will be submitted to City Representatives at the pre-construction meeting.

Remove trees in sections by performing cutting operations from the top down, utilizing cranes or boom trucks to control the fall of large pieces of trunk, branches and any tree debris.

Cut trees flush with existing grades. All stumps will be ground to a minimum of three feet below existing grade including the removal of all roots that are at that same elevation below existing grade with the cost for these removals included under this bid item.

Cavities resulting from the removal of stumps and roots will be backfilled with material approved by City Representatives. The material will be compacted to a density of not less than 95 percent of the maximum density as determined in accordance with the requirements of the applicable test methods of the ADOT Materials Testing Manual and as directed and approved by City Representatives.

Contractor will coordinate with City Representatives no less than two weeks prior to this work to tag all trees designated for removal.

Upon removal, trees will become property of the Contractor.

Burning of the removed trees will not be permitted. All tree materials resulting from removal will be removed from the jobsite during the same work day period. No debris larger than one square inch will remain after the removal process is completed.

Measurement and Payment:

Remove Tree, Diameter > 12 In will be measured as a unit each for each tree removed and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including excavation and subsequent backfill, compaction, hauling, obtaining permits, and disposing of the trees.

ITEM NO. 8 CONSTRUCT BERM

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to grade the berm around the proposed temporary retention basins as shown on the plans.

Construction Requirements:

The grading shall comply with MAG Uniform Standard Specifications Section 211 in its entirety.

Measurement and Payment:

Construct Berm will be measured per cubic yard and will be paid for at the contract unit price per cubic yard, which price shall be full compensation for the work, complete in place.

ITEM NO. 9 EARTHWORK FOR RETENTION BASINS

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the excavation (or fill) to construct the retention basins as depicted by the contours and elevations shown within the details of the drainage plans. The work will also include adjustments for any structures or landscaping in existing retention basins as specified in the Project Plans.

Construction Requirements:

All grading for Earthwork for Retention Basins will be constructed in accordance with the requirements of with ADOT Standard Specifications Section 203.4, except as modified herein.

All basins constructed will be percolation tested in accordance with the double-ring infiltrometer test ASTM D3385. The results of the tests will be submitted to the City for evaluation prior to the acceptance of the basin grading.

Retention basin slopes will not exceed 4:1 horizontal to vertical.

Measurement:

Earthwork for Retention Basins will be measured per cubic yard, including percolation tests. The Engineer will compute the quantities of material excavated by a method which in his opinion is best suited to obtain an accurate determination.

Payment:

The accepted quantity of Earthwork for Retention Basins, measured as provided above, will be paid for at the contract unit price per cubic yard, which price will be full compensation for the work, complete in place. Payment will include adjustments and grading around existing structures and landscaping. No additional payment will be made for grading beyond the "match points" or extent of the new drainage contour lines, as

specified in the Project Plans or as a result of disturbance by the Contractor.

No additional payment will be made for the percolation tests, the cost being considered incidental to this item.

ITEM NO. 10 RIPRAP, D50=6 IN, T=12 IN

Description:

The work under this item will include furnishing of all materials, labor, and equipment necessary to install riprap at locations and dimensions as specified in on the Project Plans including filter fabric.

Materials:

Riprap stone will comply with MAG Uniform Standard Specifications Sections 701.2 and 703 in their entirety. All riprap will have a d_{50} size of six inches and T of 12 inches. Riprap will be constructed one foot thick. Filter Fabric will comply with MAG Uniform Standard Specification Section 796 in its entirety.

Construction Requirements:

Riprap will be constructed in accordance with MAG Uniform Standard Specification Section 220.

Measurement and Payment:

Riprap, D50=6 In, T=12 In will be measured per cubic yard and will be paid for at the contract unit price per cubic yard, which price will be full compensation for the item, complete in place, including filter fabric.

ITEM NO. 11 SUBGRADE PREPARATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the excavation for the grading and construction of the roadway as specified in the Project Plans.

Construction Requirements:

Subgrade Preparation will comply with MAG Standard Specifications Section 205 and 301 in its entirety, except as modified herein.

Measurement:

Subgrade Preparation will be measured per square yard including roadway excavation, borrow excavation, and fill construction.

Payment:

The accepted quantity of Subgrade Preparation, measured as provided above, will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

- ITEM NO. 12 AGGREGATE BASE, 4 IN THICK (APN 304-81-037C)**
- ITEM NO. 13 AGGREGATE BASE, 5 IN THICK**
- ITEM NO. 14 AGGREGATE BASE, 12 IN THICK**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for the placement and construction of the aggregate base course as specified in the Project Plans (DWG TX01).

Materials:

Aggregate Base will all comply with MAG Standard Specifications Section 702 in its entirety, except as modified herein.

The graded aggregate base course will meet City requirements, as shown in the table below:

SIEVE SIZE (PER ASTM D422-63)	PERCENT PASSING BY WEIGHT
1 1/4 INCH	100
No. 4	38-65
No. 8	25-60
No. 30	10-40
No. 200	3-12
P.I. MAX	5

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 310 in its entirety, except as modified herein.

Measurement:

Aggregate Base, per thickness as specified in the Project Plans, will be measured per square yard.

Payment:

The accepted quantities of Aggregate Base, per thickness as specified in the Project Plans, measured as provided above, will be paid for at the contract unit price per square yard which price will be full compensation for the work, complete in place. Payment will include the excavation of in-situ material to reach depths specified on the Project Plans, percolation tests, and filter fabric.

No additional payment will be made for the excavation of in-situ material to reach depths as specified in the Project Plans, percolation tests or filter fabric, the cost being considered incidental to this item

- ITEM NO. 15 ASPHALTIC CONCRETE PAVEMENT (2 IN SURFACE COURSE, A-12.5 EVAC)**
- ITEM NO. 16 ASPHALTIC CONCRETE PAVEMENT (3 IN SURFACE COURSE, A-12.5 EVAC)**
- ITEM NO. 17 ASPHALTIC CONCRETE PAVEMENT (3 IN BASE COURSE, A-19 EVAC)**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for mixing at a plant, hauling, and placing a mixture of aggregate materials, mineral admixture and asphalt binder to form a pavement course upon a previously prepared base or sub base at all locations as specified in the Project Plans.

Materials:

Asphalt Concrete Pavement mix design will conform to current East Valley Asphalt Committee (EVAC) Conventional List of Hot Mix Approved Asphalt Mixes as follows:

- 2 in surface course will be A-1/2
- 3 in surface course will be A-1/2
- 3 in base course will be A-3/4

For current EVAC specifications see City of Mesa website located here: <http://www.mesaaz.gov/business/engineering/approve-products-equipment-natural-gas-line-contractors>.

Surface course paving of milled surfaces will conform to MAG 710.

Construction Requirements:

The work under this item will comply with MAG Standard Specifications Section 321 in its entirety, except as modified herein.

The base prepared by the Contractor, on which the asphalt concrete pavement is to be placed, will be smooth, firm, and true to grade and cross-section as specified in the Project Plans, and will be so maintained throughout the period of placing asphalt concrete. If necessary, in order to obtain the above specified base condition, and if ordered by City Representatives, a leveling course of asphalt concrete compacted in layers not exceeding 2 inches in thickness or aggregate base will be spread to level irregularities such as dips, depressions, and sags. All irregularities such as humps or high spots will be removed in order to provide a smooth base of uniform grade and cross-section, so that subsequent surfacing will be of uniform thickness. No additional compensation will be allowed for furnishing and placing these materials and for all work incidental to the correcting of irregularities will be considered as included in the contract price for asphalt concrete pavement.

Cold joints between pavement sections will be saw cut.

Surface course paving of milled surfaces will conform to MAG 710. Tack coat will be applied to milled surface prior to paving, which is described under a separate item.

Measurement and Payment:

Asphaltic Concrete Pavement will be measured per square yard and will be paid for at the contract unit price per square yard which price will be full compensation for the work, complete in place.

No additional payment will be paid for saw cutting associated with cold joints.

Measurement and payment for tack coat between lifts as well as for milled surfaces will be paid for under a separate item.

ITEM NO. 18 PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) 9 IN THICK

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct concrete bus bays and private driveways as specified in the Project Plans.

Materials:

Portland Cement Concrete Pavement will comply with MAG Standard Specifications Section 725 in its entirety, except as modified herein.

Construction Requirements:

The work under these items will comply with MAG Uniform Standard Specifications Section 324 in its entirety, as well as City Details C-230 and C-231.

Measurement and Payment:

Portland Cement Concrete Pavement will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place.

ITEM NO. 19 BITUMINOUS TACK COAT SS-1H, DILUTED

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to apply a bituminous tack coat at all locations as specified in the Project Plans or as directed by City Representatives.

Materials:

Bituminous Tack Coat will be SS-1h type or approved equal and will conform to MAG Standard Specification Section 713 in its entirety.

Construction Requirements:

Bituminous Tack Coat will comply with MAG Standard Specifications Section 329 in its entirety, except as modified herein.

Tack coat will be applied at the rate of no less than 0.08 gallons per square yard or as directed by City Representatives.

Measurement:

Bituminous Tack Coat will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

No additional payment will be made for application of Bituminous Tack Coat SS-1H, Diluted, the cost being considered incidental to this item.

ITEM NO. 20 SURFACE SEAL

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment necessary to complete surface seal of all areas identified on the Project Plans and as directed by City Representatives. The work will include cleaning and routing out appropriate cracks, cleaning and sweeping, and applying crack seal to appropriate cracks.

Materials:

Mineral aggregate gradation will conform to MAG Standard Specifications Section 715, Table 715-1, Type II.

Crack seal will be Deery-Crafco 220 or approved equal.

Surface seal shall be Polymer Modified Rejuvenating Emulsion Fog Coat (PMRE) from EGRON, or approved equal.

Construction Requirements:

The work under this item will comply with MAG Standard Specifications Section 331 in its entirety.

Prior to surface seal, pavement is to be cleaned and routed for appropriate cracks, cleaned and swept, and crack sealed with Deery-Crafco 220 or approved equal.

Contractor shall seal all cracks having an average clear opening $\frac{1}{4}$ " or greater. All cracks with an average clear opening of less than $\frac{1}{4}$ inch shall not be sealed unless directed to do so by City Representatives. All cracks between asphalt and curb or gutter shall be sealed regardless of clear opening size unless directed by City Representatives. Contractor shall contact City Representatives for filling of cracks 2" or wider.

Immediately prior to applying the sealant, Contractor shall thoroughly clean cracks and remove any loose particles, grass, grass roots, weeds, dust and other deleterious substances by means of high velocity compressed air or other methods prior approved by City Representatives. The compressor used shall be capable of a sustaining a minimum pressure of 90 psi. The crack cleaning equipment shall be capable of cleaning cracks to a minimum depth of $\frac{1}{2}$ " and shall be capable of dust containment (typically by a vacuum apparatus) by filtering particulate matter 10 micrometers or less in diameter with no dust clouds visible to the naked eye as determined by the City Representative. The conventional method of openly blowing out cracks with compressed air with no dust containment shall not be an acceptable crack cleaning method.

Crack cleaning shall be inspected and approved by the City Representative prior to the application of crack sealant.

Contractor shall place sealant so as to completely fill the crack and form a lap of greater

than 1" on each side. Immediately after the application, a rubber squeegee or other acceptable means shall be used to level the sealant flush with the existing pavement surface. After cooling, the sealant shall not shrink more than ¼" below the pavement surface.

Sealant shall be heated to between 325°F and 400°F (163°C and 204°C) for at least ½ hour prior to application. Sealant shall only be applied to clean, dry cracks that have been approved by the City Representative from the bottom up to the surface level. Contractor shall provide certificates on all temperature gauges. The dates of the certificates shall be within the previous three (3) month period.

The sealant shall be intended to be placed entirely within the crack. Blotter material may be required to prevent asphalt rubber bleed and/or pickup of sealant by vehicular traffic. Contractor shall install blotter material of a type acceptable to City and at the direction of the City Representative at no additional cost to the City. Typical blotter material shall be made up of sand/silica sand and cannot include powdered cement. Any blotter material must be pre-approved by the City Representative.

Measurement and Payment:

Surface Seal will be measured by the square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place.

No additional measurement or payment will be made for crack sealing, asphalt emulsion, blotter, and aggregate, the cost being considered incidental to this item.

ITEM NO. 21	VERTICAL CURB & GUTTER, TYPE A, H=6 IN, MAG DET 220-1
ITEM NO. 22	SINGLE CURB, TYPE A, MAG DET 222
ITEM NO. 23	END OF MEDIAN RAMP, CITY DET C-225

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct new curb and gutter, single curb, and end median ramp at locations as specified in the Project Plans.

Materials:

Curb & Gutter and transitions will comply with MAG Details 220-1, 220-2, 221, and 222. Single Curb, Type A will conform to MAG Detail 222. End Median Ramp will comply with City Detail C-225.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 340 in its entirety, MAG Details 220-1, 220-2, and 222, and City Detail C-225. Concrete

curb/curb and gutter transitions will be constructed in accordance with MAG Detail 221.

Measurement:

Vertical Curb & Gutter and Single Curb will be measured per linear foot, including median nose transitions and curb and gutter transitions. End of Median Ramp will be measured as a unit for each, including concrete median paving and concrete curbs at the end of median ramp.

Payment:

Vertical Curb & Gutter and Single Curb, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place.

End of Median Ramp, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including concrete median paving and concrete curb at the end of median ramp.

No additional payment will be paid for median nose transitions or curb/curb and gutter transitions, the cost being considered incidental to this item.

ITEM NO. 24 CONCRETE HEADER (6 IN)

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment necessary to construct concrete header with a medium broom finish at the locations as specified in the Project Plans and in accordance with the details shown on the Project Plans, these Technical Specifications, and the requirements of the MAG Standard Specifications.

Materials:

All materials will conform to MAG Standard Specifications Sections 342 in its entirety.

Construction Requirements:

The Contractor will be responsible for forming the concrete headers per the detail shown on the Project Plans and City Detail C-225. Prior to placing the concrete header, the Contractor will obtain approval from City Representatives for the finish and forming to ensure it is consistent with the layout as specified in the Project Plans and that the finish is acceptable prior to proceeding with the work.

All exposed edges will have a 1/4-inch radius.

Measurement and Payment:

Concrete Header (6 in) will be measured by the linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the work complete in place.

ITEM NO. 25 CONCRETE SIDEWALK, MAG DET 230

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary construct new concrete sidewalk per MAG Detail 230 at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Detail 230 in their entirety, except as modified herein.

Construction Requirements:

Comply with Chapter 4 - Street Design and Access Control, of City of Chandler Engineering & Design Standards Manual and MAG Detail 230 in their entirety and all City of Chandler supplements, except as modified herein.

Measurement and Payment:

Concrete Sidewalk will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, complete in place.

ITEM NO. 26 CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-257

ITEM NO. 27 CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-258

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment necessary to construct concrete curb ramps at locations as specified in the Project Plans.

Materials:

All materials will conform to City Details C-257 and C-257 in their entirety, including all City of Chandler supplements.

Construction Requirements:

Concrete Curb Ramps will comply with City Details C-257 and C-258 in their entirety, including all City of Chandler supplements.

The work under this item includes construction of the adjacent concrete sidewalk areas and concrete curb as shown per City Details C-257 and C-258 and as specified in the Project Plans and all City of Chandler supplements

Measurement:

Concrete Curb Ramps will be measured as a unit for each, including detectable warnings, additional sidewalk area, and concrete curb as specified in the Project Plans.

Payment:

The accepted quantities of Concrete Curb Ramps, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the item, complete in place.

No additional payment will be made for additional sidewalk area or concrete curb, the cost being considered incidental to this item.

Detectable warnings will be installed, measured, and paid for under a separate item.

ITEM NO. 28 DRIVEWAY ENTRANCE, MAG DET. 250-2, RESIDENTIAL

Description:

The work under these items will consist of furnishing all materials, labor and equipment necessary construct new concrete driveway entrances at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Details 250-1 & 250-2 in their entirety.

Construction Requirements:

The work under these items will comply MAG Details 250-1 & 250-2 in their entirety, except as specified in the Project Plans and all City of Chandler supplements

Measurement and Payment:

Driveway Entrances will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, complete in

place.

ITEM NO. 29 CONCRETE APRON AND VALLEY GUTTER, MAG DET 240

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to construct new concrete apron and valley gutters at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Detail 240 in its entirety.

Construction Requirements:

The work under this item will comply with MAG Detail 240 in its entirety, including all City of Chandler supplements except as modified herein.

Measurement and Payment:

Concrete Apron and Valley Gutter will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, complete in place.

ITEM NO. 30 INTERLOCKING CONCRETE PAVERS

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to complete the installation of decorative interlocking concrete pavers within the medians or as otherwise as specified in the Project Plans.

Materials:

The Interlocking Concrete Pavers will be Acker-Stone Industries Street Stone I (3"x6", 6"x6") / Street Stone II (6"x9") type, Gila River color, and Random Ashlar pattern, or approved equal per City of Chandler Approved Products List. All other materials will comply with MAG Detail 225.

Construction Requirements:

The work under this item will comply with MAG Detail 225 and COC Detail C-225. The subgrade surface, 4-inch aggregate base course (ABC) base, and 1-inch sand bedding will each be compacted to a density of not less than 95 percent of the maximum density

as determined in accordance with the requirements of the applicable test methods of the ADOT Materials Testing Manual, as directed and approved by City Representatives.

A sample of the pavers and layout pattern will be submitted to the City of Chandler for approval at least two weeks before the start of work. Installation of decorative interlocking concrete pavers will not begin until the submitted samples and layout pattern have been approved by City Representatives.

Measurement and Payment:

Interlocking Concrete Pavers will be measured by the square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place, including samples, preparation of the subgrade, ABC base, sand and design of layout pattern.

ITEM NO. 31 REINSTALL PAVER DRIVEWAY (APN 304-81-221C)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to complete the installation of a brick paver driveway at APN 304-81-221C as specified in the Project Plans.

Materials:

Existing pavers will be salvaged by the City and stored onsite until they are reinstalled. The brick paver driveway will be reinstalled using the existing materials and required to generally match the existing brick paver driveway in shape, size, type, and color. Any new brick paver material will be approved by City Representatives prior to installation. All other materials will comply with manufacturer requirements.

Construction Requirements:

The work under this item will comply with manufacturer requirements. The subgrade surface, ABC base, and sand bedding will be installed and compacted per manufacturer requirements, as directed and approved by City Representatives.

A sample of the pavers and layout pattern will be submitted to the City of Chandler for approval at least two weeks before the start of work. Installation of the brick paver driveway will not begin until the submitted samples and layout pattern have been approved by City Representatives.

Additional pavers not used for the reinstallation of the brick paver driveway will be returned to the property owner. The Contractor will be required to obtain the property

owners' sign-off as proof of delivery of the salvaged material.

Measurement and Payment:

Reinstall Paver Driveway will be measured by the square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the item, complete in place, including samples, preparation of the subgrade, ABC base, sand and design of layout pattern.

The contractor will be responsible for payment of additional pavers if existing pavers are damaged during construction and cannot be salvaged and reused.

ITEM NO. 32 REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND COVER PER COC DTL C-400 AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to remove and replace all existing sanitary sewer manhole frames and covers with composite manhole frames and covers and adjust them to match the final surface grade at all locations as specified in the Project Plans. This work will include application of a corrosion-protective coating system per City of Chandler Standard Detail C-401.

The Contractor shall comply with the City of Chandler Specifications for Corrosion-Protective Manholes. The City shall supply composite frame, cover, and grade rings to be installed by the Contractor as well as the construction of a new concrete collar. Training on the composite installation is required by the City prior to obtaining City supplied materials.

Materials:

All materials shall conform to City of Chandler Standard Details C-400 and C-401.

Corrosion-protective coating system materials in accordance with MAG Section 626 and City MAG Supplement Section 626 shall be one of the systems included on the City of Chandler list of approved products.

All composite adjustment ring materials shall comply with City of Chandler Standard Details C-400 and C-401 and the City of Chandler list of approved products.

The City shall supply the composite frame, cover, and grade rings to the Contractor.

Construction Requirements:

The work under this item will comply with City Details C-400 and C-401.

All manholes shall have a corrosion-protective coating system applied to all exposed surfaces, with the application completed in accordance with the manufacturer's specifications and the City of Chandler's specifications.

Measurement and Payment:

Remove & Replace Manhole Frame & Cover and Adjust to Grade will be measured as a unit per each and will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place.

No payment will be made to furnish manhole cover, to be provided to the Contractor by the City.

ITEM NO. 33 ADJUST VALVE BOX & COVER, MAG DET 391-1, 391-2 AND CITY DET C-307 AND C-317

ITEM NO. 34 ADJUST VALVE BOX & COVER (NON-CITY UTILITY)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to reset frames and covers for existing water and reclaimed water valve boxes and covers at all locations as specified in the Project Plans. This work also includes adjustment of private utility valves as indicated on the Project Plans.

Materials:

All materials will conform to MAG Details 270, 391-1 and 391-2 and City Detail C-307, or as otherwise required by non-City utilities.

Construction Requirements:

Comply with, MAG Details 270, 391-1 and 391-2, and City Details C-307 and C-317, in their entirety, including all City of Chandler supplements except as modified herein, or as otherwise required by non-City utilities.

Measurement and Payment:

Adjust Valve Box & Cover will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 35 REMOVE PIPE, BACKFILL & COMPACT, VARIOUS TYPES AND

SIZES

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for the removal of abandoned pipes (all types) at locations as specified in the Project Plans or as directed by City Representatives, including, but not limited to, private irrigation pipelines along as specified in the Project Plans.

Construction Requirements:

Removal of abandoned pipes, backfilling, and compaction will comply with MAG Standard Specifications Section 350 in its entirety except as modified herein.

Measurement and Payment:

Remove Pipe, Backfill & Compact will be measured per linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place. No additional payment will be made for cutting, plugging, capping, backfilling, compaction, hauling, proper disposal, or temporary pavement, the cost being considered incidental to this item.

ITEM NO. 36 REMOVE ASPHALTIC CONCRETE PAVEMENT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing asphaltic concrete pavement and Portland cement concrete pavement at locations as specified in the Project Plans.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety.

Measurement and Payment:

Remove Asphaltic Concrete Pavement will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

ITEM NO. 37 MILL AND REMOVE BITUMINOUS PAVEMENT, 2 IN

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for milling, removal, and disposal of existing bituminous pavement as well as cleaning, sweeping, and crack seal at locations as specified in the Project Plans.

Construction Requirements:

Mill, removal, and disposal of existing bituminous pavement at a depth of two inches will comply with MAG Standard Specifications Section 317 in its entirety.

The milled surface is to be cleaned to route out appropriate cracks. The surface is then to be cleaned and swept. Crack seal (Deery-Crafco 220 or approved equal) is to be applied to appropriate cracks to prepare for paving.

Contractor shall seal all cracks having an average clear opening $\frac{1}{4}$ " or greater. All cracks with an average clear opening of less than $\frac{1}{4}$ inch shall not be sealed unless directed to do so by City Representatives. All cracks between asphalt and curb or gutter shall be sealed regardless of clear opening size unless directed by City Representatives. Contractor shall contact City Representatives for filling of cracks 2" or wider.

Immediately prior to applying the sealant, Contractor shall thoroughly clean cracks and remove any loose particles, grass, grass roots, weeds, dust and other deleterious substances by means of high velocity compressed air or other methods prior approved by City Representatives. The compressor used shall be capable of sustaining a minimum pressure of 90 psi. The crack cleaning equipment shall be capable of cleaning cracks to a minimum depth of $\frac{1}{2}$ " and shall be capable of dust containment (typically by a vacuum apparatus) by filtering particulate matter 10 micrometers or less in diameter with no dust clouds visible to the naked eye as determined by the City Representative. The conventional method of openly blowing out cracks with compressed air with no dust containment shall not be an acceptable crack cleaning method.

Crack cleaning shall be inspected and approved by the City Representative prior to the application of crack sealant.

Contractor shall place sealant so as to completely fill the crack and form a lap of greater than 1" on each side. Immediately after the application, a rubber squeegee or other acceptable means shall be used to level the sealant flush with the existing pavement surface. After cooling, the sealant shall not shrink more than $\frac{1}{4}$ " below the pavement surface.

Sealant shall be heated to between 325°F and 400°F (163°C and 204°C) for at least $\frac{1}{2}$ hour prior to application. Sealant shall only be applied to clean, dry cracks that have been approved by the City Representative from the bottom up to the surface level. Contractor shall provide certificates on all temperature gauges. The dates of the certificates shall be within the previous three (3) month period.

The sealant shall be intended to be placed entirely within the crack. Blotter material may be required to prevent asphalt rubber bleed and/or pickup of sealant by vehicular traffic. Contractor shall install blotter material of a type acceptable to City and at the direction of the City Representative at no additional cost to the City. Typical blotter material shall be made up of sand/silica sand and cannot include powdered cement. Any blotter material must be pre-approved by the City Representative.

Measurement and Payment:

Mill and Remove Bituminous Pavement will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place, including all asphalt milling around structures, removal and disposal of milled materials, cleaning, sweeping, and crack sealing to prepare for paving.

ITEM NO. 38 REMOVE IRRIGATION STRUCTURE

Description:

The work under this item shall consist of removal and disposal of a private irrigation structure necessary for the accomplishment of the improvements shown on the Project Plans.

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 350 in its entirety, including all City of Chandler supplements except as modified herein.

Measurement and Payment:

Remove Irrigation Structure will be measured as a unit for each and will be paid for at the contract unit price per each which price shall be full compensation for the work, complete in place. No additional payment will be made for excavation, backfilling, compaction, disposal and capping at the utility main, epoxy, coordination of water/reclaimed water shutdowns, the cost being considered included in this item.

ITEM NO. 39 REMOVE CONCRETE CURB AND GUTTER

ITEM NO. 40 REMOVE CONCRETE DITCH AND BACKFILL

Description:

The work under these items will consist of furnishing all materials, labor, and equipment

for the removal and disposal of existing concrete curb & gutter and concrete irrigation ditch at locations as specified in the Project Plans.

Construction Requirements:

Removal and disposal of existing concrete curb & gutter and concrete irrigation ditch will comply with MAG Standard Specifications Section 350 in its entirety, except as modified herein.

The Contractor will be responsible for removing the identified concrete improvements in their entirety. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Remove Concrete Curb & Gutter and Remove Concrete Ditch & Backfill will be measured per linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, including all removals, disposals, backfilling, and compaction, complete in place.

- ITEM NO. 41 REMOVE CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS**
- ITEM NO. 42 REMOVE VALLEY GUTTER**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing concrete sidewalks, driveways, slabs, and valley gutters at locations as specified in the Project Plans.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety, except as modified herein.

The Contractor will be responsible for removing and disposal of the identified concrete improvements in their entirety. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Remove Concrete Sidewalk, Driveway, Slabs, and Valley Gutter will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, including all removals, disposals, backfilling, and compaction, complete in place.

ITEM NO. 43 REMOVE AND SALVAGE PAVERS (APN 304-81-221C)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and salvage of the existing paver driveway on APN 304-81-221C.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety, except as modified herein.

The Contractor will be responsible for removing and salvage of the identified pavers in their entirety. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Remove and Salvage Existing Pavers will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, including all removals, disposals, backfilling, and compaction, complete in place.

ITEM NO. 44 REMOVE DIRECT BURY POLE AND MAST ARM

Description:

The work under this item will include the furnishing of all materials, equipment and labor for removing Streetlight poles and equipment within the project limits.

Construction Requirements:

The Contractor will coordinate all work associated with the streetlight systems (i.e. de-energizing the system, etc.) with SRP Power. The Contractor will be responsible for removing all existing Streetlight poles, luminaires, mast arms, and associated appurtenances within the project limits. All associated street light material and equipment, including poles, will be disposed of by the Contractor at their expense.

The Contractor will backfill the excavated area per MAG Standard Specifications Section 350.

Measurement:

Remove Direct Bury Pole and Mast Arm will be measured as a unit for each light pole removed including luminaires, mast arms, and associated appurtenance.

Payment:

The accepted quantities of Remove Direct Bury Pole and Mast Arm, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be paid for the disposal of removed materials, the cost considered being included in this bid item.

ITEM NO. 45 REMOVE EXISTING HPS FIXTURE

Description:

The work under this item will include the furnishing of all materials, equipment and labor for removing and disposing of existing high pressure sodium light fixtures within the project limits.

Construction Requirements:

The Contractor will coordinate all work associated with the streetlight systems (i.e. de-energizing the system, etc.) with SRP Power. The Contractor will be responsible for removing all existing luminaires within the project limits. All associated light material will be disposed of by the Contractor at their expense.

Measurement:

Remove Existing HPS Fixture will be measured as a unit for each light fixture removed.

Payment:

The accepted quantities of Remove Existing HPS Fixture, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be paid for the disposal of removed materials, the cost considered being included in this bid item.

ITEM NO. 46 REMOVE AND SALVAGE SIGN ASSEMBLY

Description:

The work under this item consists of furnishing all equipment, labor, and materials necessary to removal and salvage existing signs at locations as specified in the Project Plans or directed by City Representatives.

Construction Requirements:

The Contractor will be responsible for removing, salvaging, storing, and delivering the identified existing signs, and if necessary, removing the existing sign foundation, sign post, hardware and appurtenances and salvaging as required.

At least two week prior to removal of signs, the Contractor will make arrangements for the City Representative to inspect all items to determine which items are salvageable. Any items not salvageable, as determined by the City, will be disposed of by the Contractor at his expense. All salvaged items will be returned to the City of Chandler storage yard at 1800 S/ McQueen Road, Chandler, Arizona. Any items determined to be salvageable prior to removal and then damaged during the removal or delivery will be replaced at no cost to the City.

The work shall include any necessary excavation and backfilling, to remove foundation and to return the existing ground to its former state before removal. The Contractor shall completely backfill and compact the foundation excavation area in accordance with the City requirements and MAG Standard Specifications Section 350.

The Contractor will utilize the existing stop signs and other signing items instead of temporary signing at those locations as much as possible until the existing signing items are no longer determined to be necessary. All items to be removed and which will not be incorporated into the new work, will be removed in a manner which will not produce unnecessary damage or disturbance. The Contractor will not disturb any other signs, sign posts, foundations, or object marks, not specifically indicated on the Projects Plans or in the technical specifications to be removed unless otherwise direction by City Representatives.

Any items which are not identified to be removed but which are damaged as a result of the construction will be replaced at the Contractor's expense.

Measurement and Payment:

Remove and Salvage Sign will be measured as a unit for each and will be paid for at the contract unit price per each, which price shall be full compensation for the work, complete in place.

No additional payment will be made for hauling, storing, delivery, removal, or disposal offsite of the signs, sign posts, foundations, hardware, backfill and compaction, the cost being considered incidental to this item.

ITEM NO. 47 REMOVE FENCE
ITEM NO. 48 REMOVE WALL

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing fences, walls and gates at locations as specified in the Project Plans, including all appurtenance, such as, but not limited to foundations, hardware, and termination of electrical.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety, including all except as modified herein.

The Contractor will remove the fences, walls, and gates, including foundations, hardware, posts, lighting, and backfill, compaction, and disposal.

The Contractor will be required to notify property owners 30 days prior to wall removal and coordinate materials to be salvaged to the property owner including but not limited to existing light fixtures, existing wrought iron, and other existing features. The Contractor will be required to obtain the property owners' sign-off as proof of delivery of salvaged materials.

The Contractor will remove the segment of existing power feed (to wall lighting) that is in conflict with the project improvements and terminate beyond the alignment of the new wall.

The Contractor will not remove existing fences and gates until new fence and gates have been fully erected, except as needed to construct new fence and gate connections to existing fence.

Measurement:

Remove Fence and Remove Wall will be measured per linear foot along the center of the fence or wall.

Remove Gate will be measured as a unit for each, including hardware, posts, foundations, backfill, compaction and disposal.

Payment:

The accepted quantity of Remove Fence and Remove Wall, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place.

No separate payment will be made for the removal, disposal, or salvage of hardware, posts, lighting, hardware, and foundations, backfill and compaction, removal of existing power feed and termination beyond the alignment of the new wall, the cost being considered incidental to this item.

ITEM NO. 49 REMOVE AND SALVAGE EXISTING WROUGHT IRON GATE (APN 304-81-221C)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and salvage of the existing entry gate on APN 304-81-022C as specified in the Project Plans, including all appurtenance, such as, but not limited to foundations, hardware, and termination of electrical.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety, including all except as modified herein.

The Contractor will remove the gate including foundations, hardware, posts, lighting, and backfill, compaction, and disposal.

The Contractor will be required to notify property owners 30 days prior to gate removal and coordinate materials to be salvaged to the property.. The Contractor will be required to obtain the property owners' sign-off as proof of delivery of salvaged materials.

The Contractor will not remove existing gate until new fence and gates have been fully erected, except as needed to construct new fence and gate connections to existing fence.

Measurement:

Remove and Salvage Gate will be measured as a unit for lump sum, including hardware, posts, foundations, backfill, compaction and disposal.

Payment:

The accepted quantity of Remove and Salvage Gate, measured as provided above, will be paid at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 50 REMOVE EXISTING DECORATIVE WALL, REMOVE AND SALVAGE EXISTING LIGHT FIXTURE AND CURVED WROUGHT IRON VIEW VENCE (APN 304-81-221C)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for the removal and disposal of the existing decorative wall and planter area and the removal and salvage of the existing light fixture and curved wrought iron view fence at the entrance of APN 303-81-221C as specified in the Project Plans.

Construction Requirements:

Remove Existing Decorative Wall will comply with MAG Standard Specifications Section 350 in its entirety, except as modified herein.

The Contractor will be responsible for removing and disposing of the identified features in its entirety. The Contractor will backfill the excavated area per MAG Standard Specifications Section 350.

The Contractor will be required to notify property owners 30 days prior to wall removal and coordinate materials to be salvaged to the property including light fixture and curved wrought iron view fence. The Contractor will be required to obtain the property owners' sign-off as proof of delivery of salvaged materials.

Measurement and Payment:

Remove Existing Decorative Wall will be measured as a single complete unit of work and will be paid at the contract lump sum price, which price will be full compensation for the work, complete in place, including all removals, disposals, backfilling, and compaction.

ITEM NO. 51 REMOVE AND SALVAGE TRAFFIC SIGNALS

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment for removing and salvaging traffic signals, including the foundations, poles, luminaires, mast arms, vehicular and pedestrian signal heads, mounting assemblies, video detection, emergency preemption, interconnect cabling, interconnect pull boxes, and incidental traffic signal equipment.

Construction Requirements:

At least two weeks prior to removals, the Contractor and City Representative will inspect all traffic signals and equipment to determine which items are salvageable.

Prior to the delivery of any salvaged material or equipment, the Contractor will make arrangements for the City to inspect all items. Any material or equipment not salvageable, as determined by the City, will be disposed of by the Contractor at his expense. Any items determined to be salvageable prior to removal and then damaged during the removal will be replaced at no cost to the City.

The Contractor will remove the existing interconnect cabling and interconnect pull boxes at locations as specified in the Project Plans.

The Contractor will be responsible for removing all existing traffic signal foundations, poles, luminaires, mast arms, vehicular and pedestrian signal heads, mounting assemblies, video detection, emergency preemption, interconnect cabling, interconnect pull boxes, and incidental traffic signal equipment at locations as specified in the Project Plans. All salvaged luminaires, mast arms, and poles will be returned to the City of Chandler storage yard at 1800 S. McQueen Road, Chandler, Arizona. All remaining traffic signal components, including but not limited to vehicular and pedestrian signal heads, mounting assemblies, video detection, emergency preemption, are to be salvaged and delivered to the Operations Yard at 249 E. Chicago Street, Chandler, Arizona.

Pole foundations will be removed completely. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Remove and Salvage Traffic Signals will be measured as a single complete unit of work and paid for at the contract lump sum price, which price will be full compensation for the work, complete in place, including delivery and disposal.

ITEM NO. 52 REMOVE AND RELOCATE MAILBOX

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for relocating mailboxes at locations as specified in the Project Plans or as directed by City Representatives. Foundation removal, if required, will also be included in this work.

Construction Requirements:

Relocate mailboxes will comply with MAG Standard Specifications Section 350 in its entirety.

Prior to the removal of mailboxes, the Contractor will make arrangements for the City to

inspect all items. Any mailboxes deemed not salvageable, as determined by the City, will be disposed of by the Contractor and replaced with a City-approved and property owner-accepted mailbox at the Contractor's expense.

The work under this item will also include the relocation of foundations, backfill, and compaction.

For each mailbox, the Contractor shall protect-in-place the existing mailbox or provide a temporary mailbox during construction as directed by the United States Postal Service (USPS), until the permanent mailbox is installed. If a temporary mailbox is installed, the Contractor shall coordinate with the United States Postal Service (USPS) prior to removal of the existing mailbox to ensure continued mail service throughout construction duration. Temporary mailboxes shall be of a similar size to the existing mailbox.

Measurement:

Remove and Relocate Mailbox will be measured as a unit for each mailbox relocated including foundation, appurtenances, backfill and compaction, and disposal.

Payment:

The accepted quantities of Remove and Relocate Mailboxes, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be paid for backfill and compaction and disposal of removed items, the cost being considered incidental to this item.

Any mailboxes deemed not salvageable, as determined by the City that must be disposed of and replaced with a City-approved equal mailbox, no additional payment will be paid for materials or installation, the costs being considered incidental to this item.

No additional payment will be paid for materials or installation of temporary interim mailboxes or USPS coordination, the costs being considered incidental to this item.

ITEM NO. 53 REMOVE AND REINSTALL SIGN

Description:

The work under this item consists of furnishing all equipment, labor, and materials necessary to remove and reinstall existing signs at locations as specified in the Project Plans or directed by City Representatives.

Construction Requirements:

The Contractor will be responsible for removing, storing, and reinstalling the identified existing signs, and if necessary removing the existing sign foundation, sign post,

hardware and appurtenances and reinstalling sign to a new sign post and foundation or light pole with new hardware and appurtenances.

The work under this item will comply with MAG Standard Specifications Section 350 and City of Chandler Standard Detail C-613.

Prior to the removal of signs, the Contractor will make arrangements for the City Representative to inspect all signs all signs to be removed. Any signs deemed not salvageable, as determined by the City Representative, will be disposed of by the Contractor at his expense. Any signs damaged during removal or storage will be replaced at no cost to the City.

Measurement and Payment:

Remove and Reinstall Sign will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be made for new hardware, appurtenances, sign post, foundation, backfill, compaction or disposal, the cost being considered incidental to this item.

ITEM NO. 54 TRAFFIC CONTROL

Description:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

Construction Requirements:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

Measurement:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

Payment:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

ITEM NO. 55 UNIFORMED OFF-DUTY LAW ENFORCEMENT OFFICER

Description:

The purpose of this allowance is to provide a funding source for the direct costs associated with utilizing Local Law Enforcement Officers for traffic control purposes as required by the City. The Contractor is encouraged to first utilize City of Chandler officers for off-duty flagging services. Should City of Chandler officers not be available for the time(s) requested by the Contractor, the Contractor may utilize officers from other jurisdictions with prior approval by City Representatives. In all cases, the Contractor will be responsible for obtaining, coordinating, and paying all costs for local enforcement officers and their vehicles.

Contract reimbursement from this allowance (in whole or in part) is not ensured. The Contractor will not anticipate, nor plan, for the allowance dollar amount to be included in the total contract amount as part of this project.

Construction Requirements:

A uniformed off-duty law enforcement officer will not be scheduled to work more than 12 consecutive hours unless an emergency exists which, in the opinion of the City Representative, requires that the officer remains in the capacity of flagger.

Measurement:

Flagging services will be measured for each hour a uniformed off-duty enforcement officer and authorized vehicle is employed directly by the Contractor as a flagger and authorized in advance by the City Representative. Flagging services will be rounded to the nearest hour.

Uniformed off-duty law enforcement officer flagging services used outside the project limits will not be reimbursed under this item. The project limits are defined as the construction work zone as shown on the approved traffic control plan for the specific area under construction.

Payment:

The accepted quantities of Uniformed Off-Duty Law Enforcement Officer, measured as provided above, will be paid for at the contract unit price per hour, which price will be full compensation for the work, complete in place, including vehicle and workman's compensation.

Reimbursement for Uniformed Off-Duty Law Enforcement Officer will be paid at actual police department invoiced amount only (law enforcement officer hourly rate + hourly workers compensation fee + hourly law enforcement vehicle fee). No additional markup (overhead or profit) is allowed or paid for.

ITEM NO. 56 SURVEY MARKER, TYPE A, MAG DET 120

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary install survey markers, of the type indicated, at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Detail 120.

Construction Requirements:

The work under this item will comply with MAG Detail 120 in its entirety, including all City of Chandler supplements except as modified herein.

Measurement and Payment:

Survey Marker will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 57 METAL FENCE (MATCH-IN-KIND) (APN 304-75-013B)

Description:

This work will consist of furnishing all labor, materials, and equipment necessary to construct new metal fence and connect to existing on APN 304-75-013B.

Materials:

All materials will match existing. The Contractor will submit shop drawings to City Representative for approval.

Construction Requirements:

The Contractor will comply with shop drawing submittal approved by City Representative.

Measurement:

Metal Fence (Match-in-Kind) will be measured per linear foot, including excavation, foundations, posts, braces, and hardware.

Payment:

The accepted quantities of Metal Fence (Match-in-Kind), measured as provided above, will be paid for at the contract unit price per linear foot which price will be full compensation for the work, complete in place.

ITEM NO. 58 LANDSCAPE ESTABLISHMENT – NINETY (90) DAYS

Description:

The Construction Phase of the contract will consist of all items under this contract other than items covered under the Landscape Establishment item. When all work is completed under the Construction Phase of the contract and approved by City Representatives, Landscape Establishment of the contract will begin. No work or contract time under the Landscape Establishment phase of the project will begin until all work under the Construction Phase is considered complete by City Representatives.

The water used during Landscape Establishment to properly maintain the plant material will be furnished by the City of Chandler, at designated sources from within the project limits, at no charge to the Contractor. The Contractor will be responsible for all equipment, materials and labor necessary to load, transport and unload water for watering purposes.

During the second half of the Landscaping Establishment period, the Contractor will provide, where required, plant replacements as follows:

<u>Original Size</u>	<u>Replacement Size</u>
1 gallon	5 gallon
5 gallon	15 gallon
15 gallon	24-inch box
36-inch box	48-inch box

During the second half of the Landscape Establishment period, the Contractor will

provide plant material replacements for existing plants that die as follows:

<u>Existing Plant Material Sizes</u>	<u>Replacement Size</u>
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

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 of Chandler.

General:

The Prime Contractor will be in direct control of work performed under Landscape Establishment. If work is subcontracted, due to labor shortage, a representative of the Prime 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 the prime if the prime has received approval from City Representatives. The Prime Contractor will submit the required subcontract documentation.

The Landscape Establishment period will be 90 days.

Planted Stock and Seeding Establishment:

Materials and labor required for tree guying will be considered as included in the cost paid for under for the Landscape Establishment item.

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.

The 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 the City, if the City Representative deems additional applications are required to control weed growth.

Application sequence will be approved in advance by the City of Chandler. 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 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.

The pre-emergent herbicide will be applied in accordance with the requirements of Section 803-3.02 of these Technical Specifications and the recommendations of the pre-emergent herbicide manufacturer, as approved by City Representatives.

The control of weeds will be accomplished by the use of herbicides. Manual removal of weeds will be required, after herbicides have taken affect.

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.

The Contractor will supply City of Chandler with a minimum of 250 white colored marking flags for the purpose of conducting the monthly Landscape Establishment inspections per the acceptance of City Representatives.

Measurement and Payment:

Landscape Establishment will be measured as a single complete unit of work and paid for at the contract unit lump sum price, which price will be full compensation for the work, complete in place.

Partial payments may be made for Landscape Establishment. Payment will be based upon the length of the landscaping establishment period as specified in these technical specifications, and the contract lump sum price for this item.

- ITEM NO. 59 SHRUB – 1 GAL**
- ITEM NO. 60 SHRUB – 5 GAL**
- ITEM NO. 61 TREE – 48 IN BOX, 3 IN CAL MIN**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to plant shrubs, agave, yucca, and trees, of the size and type indicated, at all locations as specified in the Project Plans.

Control stationing, application of rodent repellent by mechanical or chemical means, removal of excess material(s), and general plant care and maintenance will also be completed in accordance with the requirements of Section 430 of MAG Standard Specifications, these Technical Specifications, and as required and approved by City Representatives.

Materials:

Amendments with each cubic yard of soil conditioner will consist of 25 pounds of agricultural gypsum, 1 pound of water soluble or powdered soil sulfur and 9 pounds of slow release Isobutylidene diurea fertilizer 25-4-8. Soil sulfur will be 85-95 percent pure soil sulfur.

Amendments will be inspected separately before adding to soil conditioner to ensure quality control. Pre-packaging of amendments is prohibited.

Within 60 calendar days of the Notice of Award, the Contractor will furnish a complete Plant Availability List of all the plantings needed for this project. The list will include the confirmed nursery source for the planting stock, assuring the availability of each plant material and the size specified herein.

The list will include the species name (botanical, common, and varietal), size and quantity of the plant material, the confirmed source for the plant material as evidenced by an invoice or contract with the confirmed source and the approximate date the plant material will be delivered to the jobsite. This Plant Availability List will be submitted in triplicate to City Representatives.

Approval of the Plant Availability List by City Representatives does not relieve the Contractor of the responsibility for providing plantings that will pass the inspection required elsewhere in the ADOT Standard Specifications or these Technical Specifications.

Prior to planting, the selection of trees will be approved by the City Representatives. The Contractor will meet with the project Landscape Architect at up to three (3) local nurseries or wholesale plant providers to select and tag trees for use in the project. Local nurseries will be defined as those located within the Phoenix Metro Area. Nursery visits will occur

a minimum of three (3) months prior to planting. The selected trees may be purchased and stored at the nursery, under continued care of the nursery, until time of planting. No planting will occur during the months of June through September.

To properly plant maintain and care for the plant material, water used during landscape construction will be furnished by the City of Chandler at the designated water meter sources from within the project limits, at no cost to the City.

Trees will be maintained in a straight vertical position during both the Construction Phase and the Landscape Establishment Phase of the project.

The Contractor will be responsible for the care of the trees and damage caused by improper support of the trees or due to construction activities. If necessary, or if required by City Representatives, all staking and bracing of trees will be completed as detailed on the Project Plans.

Construction Requirements:

Immediately after planting, all plants will be irrigated with the irrigation system until the backfill soil around and below the roots and the root ball itself is brought to 100 percent water holding capacity.

Plant pits and root balls will not be allowed to be flooded and totally saturated. Water will not be used to accomplish soil compaction around the root ball.

The soil for back-filling the planting pits will confirm to Section 430 of MAG Standard Specifications.

All trees will be staked per City of Chandler standard details and are considered incidental to the tree planting.

The Contractor will layout the planting pits in accordance with the Project Plans and control stationing along the curb edge using a starting location, methods, and markings approved by City Representatives. The planting layout will be according to the Project Plans. Triangular spacing shown are minimums only; actual spacing may vary.

The flagging will remain in the center of the planting pit until planting starts.

The Contractor will pay special attention to the infestation of weeds and grasses. If either of these items are found in the planting pits, it could result in immediate removal and disposal of the plant. The planting pit will be excavated and inspected to assure complete eradication of roots or rhizomes which may have grown into the area. This work and associated materials will be the responsibility of the Contractor and will be completed at no additional cost to the City.

All water used during the planting operation phase of the project will be the responsibility

of the Contractor and will be provided at no additional cost to the City.

Measurement and Payment:

Shrubs and trees will be measured as a unit for each item planted and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No payment will be made for shrubs and trees selected for inspection and not planted or for the care and protection of trees, shrubs, agave, yucca, prior to the beginning of the landscaping establishment period, the costs being considered as included in the prices paid for trees accepted and paid for under this bid item.

ITEM NO. 62	DECOMPOSED GRANITE, 1 ¼ IN SCREENED, DESERT GOLD
ITEM NO. 63	DECOMPOSED GRANITE, ¼ IN MINUS, EXPRESS CARMEL
ITEM NO. 64	DECOMPOSED GRANITE (TO MATCH EXISTING)
ITEM NO. 65	DECOMPOSED GRANITE, ½ IN SCREENED, EXPRESS ROSE

Description:

The work under these items consists of the following:

- Eradicating existing grasses and weeds with an approved herbicide and by mechanical methods. Also included will be furnishing and applying herbicide mixed in water.
- Grading surfaces upon which decomposed granite will be placed to ensure proper drainage.
- Furnishing, placing, and compacting and decomposed granite, which will include all excavation and back filling.
- Included in the granite work is maintaining these areas free of weeds and trash/debris during the construction and landscape establishment phases of the project.

All work under this section will be completed in accordance with the details shown on the Project Plans, MAG Standard Specifications Section 430 and 795, and the requirements of these Technical Specifications.

Materials:

Decomposed Granite to be placed at the specified in locations shown on the Project Plans will be approved for color and gradation requirements prior to placement. The color to be used on the project will have the same color range as those listed below and will be

approved by the City of Chandler representative prior to processing or placement.

Desert Gold Color Table

<u>COLOR</u>	<u>GRANITE NAME</u>	<u>SOURCE</u>
Gold	Desert Gold	Red Mountain Mining
Gold	Arizona Gold	Granite Express
Gold	Belmont Gold	Custom Landscape Materials

Express Carmel Color Table

<u>COLOR</u>	<u>GRANITE NAME</u>	<u>SOURCE</u>
Brown	Express Carmel	Rock Pros
Brown	Mountain Vista Brown	Kilauea Crushers
Brown	Desert Vista Brown	Custom Landscape Materials

Express Rose Color Table

<u>COLOR</u>	<u>GRANITE NAME</u>	<u>SOURCE</u>
Rose	Express Rose	Rock Pros
Rose	Desert Mauve	Kilauea Crushers
Rose	Grande Rose	Pioneer Landscape Materials

Granite color will be no lighter in coloration than the lightness of the specified colors above.

Granite will have no more than 10 percent of the lighter color pigments (white and cream color pigmentations) in the decomposed granite mix.

For color verification of the specified color and/or for approval of an alternate color, the Contractor will provide a 10-ton material sample for each color required on the project for review.

Criteria to be used for approval for project granite color will be based on the following:

- Similarity to the granite color sample designated as the desired granite control

color of the project

- Conformance to the material samples maintained by the City of Chandler
- If referenced similar color decomposed granite was used on previous Chandler projects
- The material's appearance after being wet and then dried

Each decomposed granite color approved for construction will be acquired from a single source.

Color and gradation requirements for the Decomposed Granite (To Match Existing) will be submitted by the Contractor to the City Representatives along with a decomposed granite sample for approval prior to ordering and installation. Decomposed Granite (To Match Existing) may vary in size, gradation, and color by location. Each type, regardless of size, gradation, and color, will be included under this item, and each type will be submitted and approved prior to ordering and installation.

Gradation requirements for Decomposed Granite (1 ¼" Screened)(Desert Gold) are as follows:

Decomposed Granite 1 ¼ Inch Screened, Desert Gold	
<u>Sieve Size</u>	<u>Percent Passing</u>
1 ¼ Inch	95-100
1 Inch	20-30
¾ Inch	0-5
½ Inch	0-4
3/8 Inch	0-3
¼ Inch	0-2

Decomposed Granite ¼ Inch Minus, Express Carmel	
<u>Sieve Size</u>	<u>Percent Passing</u>
¼ Inch	100
No. 40	5-25

Decomposed Granite ½ Inch Screened, Express Rose	
<u>Sieve Size</u>	<u>Percent Passing</u>
¾ Inch	100
½ Inch	50-60
3/8 Inch	10-20
¼ Inch	0-10

The salvage and reuse of existing granite material from the project area will not be allowed. All decomposed granite will be new. Each decomposed granite material will come from a single source to ensure uniformity of color.

All samples of decomposed granite will be supplied by the Contractor for approval prior

to ordering and installation. The Contractor will receive approval from the City of Chandler for alternate granite color and/or color changes for decomposed granite prior to installation.

Construction Requirements:

Decomposed Granite to be used on the project and all granite samples prior to placement on the job site must meet the following requirements:

- Copy of the environmental permit for each granite source pit.
- Written acknowledgement from each supplier that they can provide the quantity of Granite Material required to complete the project.
- Written acknowledgement that granite supplier material will be provided within the contract time frame.
- The cost for any approved alternate decomposed granite color will be paid for at the contract bid price.
- The Contractor will provide a 5-gallon bucket sample for each color required on the project and each proposed alternate color
- All samples provided will be cleaned and washed and will be leveled and cover an area of about 10 feet by 10 feet, and will be identified at the jobsite with a sign measuring 1-foot x 1-1/2 feet, with double staking behind the sign, and placed securely into the ground adjacent to the granite mulch color(s) samples(s).
- Labeling of decomposed granite signs will first list on line one the name of the product, and on the second line will appear the name of the supplier. Text for labeling will be waterproof, clearly legible, printed, and 1-inch capitalized text.
- Contractor will utilize one of each of the pre-bid opening colors at the same contract bid price if an alternate color is not approved.
- All granite samples provided after bidding acceptance are to be clean and washed, leveled covering an approximate spread area of 10 feet x 20 feet, and signed identifying the product and source.
- Alternate granite samples will have been cleared by City Representatives prior to color(s) submittal and on-site placement for review and approval.
- Alternate granite samples submitted after award of contract will be submitted a minimum of 30 days prior to granite installation for review and approval.

The granite color review and approval process will be coordinated by the Contractor with City Representatives and requires a 1-week minimum advance notice by the Contractor through the City Representatives. All granite colors and color alternates are as approved by City of Chandler. Granite colors are evaluated by comparison to approved color samples and existing decomposed granite.

The Contractor will remove all non-planted vegetation from all areas designated to receive decomposed granite (by chemical or mechanical means) and maintain the designated areas "vegetation-free" for a minimum period of 40 working days prior to placement of the granite mulch and decomposed granite, or as specified by the City Representative.

Prior to placement of the decomposed granite, designated areas to receive granite mulch and decomposed granite will be completely free of all grass, weeds, or other miscellaneous vegetation growth.

When using herbicides, a pre-emergent herbicide (Gallery, Surflan, Barricade or equivalent) will be applied to all granite material areas in the manner recommended by the manufacturer to prevent germination of noxious weeds. The Contractor will comply with all applicable portions of Subsection 803-3.02 of the ADOT Standard Specifications.

The subgrade upon which the decomposed granite is placed, will be graded and compacted to promote proper drainage, as approved by the City Representative.

The subgrade will be compacted to between 85 to 90 percent of the maximum proctor density, as determined in accordance with the requirements of Arizona Test Methods 230 or 235, depending on the test method used to determine the compaction density (Sand Cone or Nuclear Method).

All vehicles used for spreading, grading and raking the decomposed granite will have one set of wheels with floatation tires having a minimum width of 18 inches to allow equal compaction.

All Decomposed Granite and Decomposed Granite (To Match Existing) will be placed to a depth as indicated on the Project Plans and details. After rough spreading and rough grading of the granite mulch within the designated areas, the decomposed granite will be raked evenly and thoroughly to blend the different gradation sizes.

The use of conveyor belt type of equipment for placing granite mulch and decomposed granite will not relieve the Contractor from the requirements of compacting the granite mulch and decomposed granite with equipment as described herein.

After placement, the granite mulch and decomposed granite will be saturated with water to an optimum moisture level as recommended by the supplier. The City Representatives will approve the amount of water necessary to aid in the compaction of the granite mulch, prior to application.

During the final spreading and final grading operations, all surfaces within the granite mulch and decomposed granite areas will be passed over by the spreading and grading equipment a minimum of two-times.

Equipment operations for spreading, grading, raking, chemical application, water settling, and other operations will be done in a manner that uniformly maximizes the vehicle's wheel compaction over the surface area.

The pre-emergent herbicide will be applied in the manner recommended by the manufacturer to prevent germination of noxious weeds.

Pre-emergent herbicide will be applied to the designated granite mulch and decomposed granite areas as specified in the ADOT Standard Specifications: The City of Chandler requires three (3) applications of pre-emergent.

After placing, spreading and grading the granite mulch and decomposed granite, the Contractor will water settle the total thickness of the granite mulch and decomposed granite, to remove the fine material from the surface. The water settling operation, noted above, will be completed by applying water at minimum depth of 1/2 inch over the decomposed granite placed or as approved by the City Representative.

Measurement and Payment:

Decomposed Granite, 1-1/4 Inch Screened, Desert Gold; Decomposed Granite, 1/4 Inch Minus, Express Carmel, Decomposed Granite (To Match Existing), and Decomposed Granite, 1/2 Inch Screened, Express Rose will be measured by the square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place. Payment will include all required or requested samples, grading, compaction, pre-emergent herbicide, all erosion repair work and other related activities as described and specified herein, and as specified in the Project Plans or as required by City Representatives.

No additional payment will be made for all erosion repair work or compaction of soil, as specified herein, the cost being considered incidental to this item.

Contractor will be responsible for all erosion repairs on project site that may occur during decomposed granite mulch color review and approval process at no additional payment to the Contractor.

ITEM NO. 66 LANDSCAPE / IRRIGATION RESTORATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to restore the existing landscape and irrigation in areas that are disturbed by construction. The restoration of the existing trail, including decomposed granite, to match existing, and concrete header, to match existing, is included in this bid item. Contractor will renew and replace the existing decomposed granite to match replaced decomposed granite within these restoration areas. Work in this bid item includes any sprinkler irrigation restoration associated with the disturbed areas.

Materials:

Any disturbed existing irrigation system will require that the Contractor re-construct the irrigation system using the emitters, sprinklers, valves, piping, fittings, controllers, wiring, and other components, of sizes and types to match existing equipment and as called for in the contract documents.

All replacement or repair materials will match the existing materials that have been damaged. Irrigation materials and components will be from the same manufacturer as originally installed. Emitters and sprinklers will have the same volume output as original. PVC pipe may be from a different manufacturer, but the grade will be as originally installed. All mainline fittings will be Schedule 80, all lateral fittings will be Schedule 40.

Turf Restoration area will receive 'Midiron Hybrid Bermuda' sod or approved equal and will be inspected and approved by City Representatives at the site upon delivery to conformity to specifications. If installation occurs between October 15th to April 15th, turf restoration areas will receive 'Premium Rye Grass' seed. Sod will be nursery grown, strongly rotted, 2 years old, and free of weeds, undesirable plants and other material which will be detrimental or will hinder the proper development of the sod.

Landscape materials and decomposed granite will be replaced to match existing conditions. Contractor will walk site with City Representatives to inspect Landscape and Irrigation Restoration areas prior to construction activities.

Construction Requirements:

Contractor will verify exact limits of disturbance with City Representatives in areas specified in on the Project Plans as Landscape and Irrigation Restoration Areas. All work will be in accordance with these Technical Specifications and MAG Standard Specifications.

Contractor will identify and coordinate limits of disturbance areas where appropriate with City Representatives prior to beginning of construction activities. Contractor will contact City Representatives for review and approval of all Landscape and Irrigation Restoration materials prior to installation.

The work will also consist of reconstructing, rerouting, modifying, or repairing the existing irrigation system in areas specified in on the Project Plans. The Contractor will be required to repair and/or replace all disturbed or damaged irrigation components, returning their operation to 100 percent within 24 hours following initial disturbance of the irrigation components. The existing irrigation that will be impacted includes the drip irrigation system for the trees, shrubs and ground covers, as well as the sprinkler irrigation system for the turf areas. The work will include furnishing and installing the various irrigation sleeves, piping, drip emitters, gate valves, electric control valves, wiring, and valve boxes, including required excavation and backfill at the specified in locations shown on the Project Plans or as directed by the City Representatives.

All work will be in accordance with the details shown on the Project Plans, or as directed by the City Representatives and the requirements of these Technical Specifications. The existing irrigation components will be protected and maintained in their current condition where feasible or repaired, replaced, extended and reconnected in areas including, but not limited to, those areas that are disturbed during the construction, areas shown on the Project Plans or as directed by City Representatives. The Contractor will be required to maintain water to all existing plant materials throughout the duration of the contract using repairs, reconnections, replacements or rerouting of the system as approved by City Representatives. The Contractor will ensure that the entire existing and new irrigation systems within the project limits are operational and functional and will test and receive approval from City Representatives prior to proceeding with other related work. The City Representatives will inspect and give approval prior to backfilling.

The system will be constructed to grades and conform to areas and locations as shown on the drawings.

Protection of Existing Vegetation: The work will include the protection of all existing plant material. Contractor will take great care to protect in place all existing plant material. Contractor will replace in like kind and size existing plant material removed, damaged, or destroyed at no cost to the City and to the satisfaction of City Representatives. The Contractor will identify, and the City Representatives will review existing plant materials within the disturbance areas. Salvage and relocate or replace all plant material in conflict with the construction as designated in Landscape and Irrigation Restoration Areas in like kind and size per the direction of City Representatives.

Identify, protect, and maintain existing vegetation within the protected areas indicated on the Contract Drawings during the Contract from the Notice-To-Proceed to Final Acceptance. Perform the Work of this Section in accordance with the standards of the Tree Care Industry Association (TCIA). Do not perform work within the protected areas unless approved by City Representatives. Do not store materials within the protected areas. Do not permit vehicle parking, foot traffic, or other activity not approved in writing by City Representatives within the protected areas. Provide labor and new and undamaged materials that constitute "Best Practice" to meet the letter and intent of this Contract. Follow the safety requirements of ANSI Z133.1.

Verification of Conditions: Prior to the start of construction, Contractor will conduct

onsite inspections of plants and vegetation with the City of Chandler Representative and identify and inventory the plants and vegetation that are to remain in place during this area tour. Field measure and stake Project improvements as needed for establishing the location and limits of disturbance.

Construction within Protected Areas:

Demolition and Construction Activities: Contractor will perform demolition and construction activities within protected areas in a manner that minimizes damage to tree roots and branches. Use hand tools where necessary. Make minimal use of construction equipment within the protected areas. Use such equipment within the protected area only when approved by City Representatives. Tree pruning will be performed by a Certified Arborist. Notify the City Representatives 72 hours prior to the use of the equipment within the protected areas.

Provide bridging materials, such as protective planking, in protected areas where construction equipment operates. When utilities must be installed within protected areas, bore under the protected areas whenever possible instead of digging open trenches through them.

Excavating around Trees and Shrubs: Contractor will excavate around trees and shrubs within protected areas only where indicated on the Project Plans. When work that may impact protected plants occurs, plan the work to assure minimal disturbance to the plants, follow good horticultural practices, and direct pruning and wound treatment in accordance with this Section.

Protecting Root Systems: Contractor will protect root systems from damage due to runoff or spillage of noxious materials in solution during storage or construction activities. Protect root systems from flooding or soil erosion. Provide a minimum of two layers of untreated burlap as a covering over exposed root face areas. Do not disturb or excavate protected root zone areas unless specifically authorized to do so by City Representatives. Where trenching for utilities is required within protected areas, excavate under or over roots by hand digging under the authority of City Representatives. If large roots are encountered, or if a condition potentially fatal to the plant is observed, notify City Representatives prior to continuing or commencing work. Do not cut main lateral roots or taproots, those 2-1/2 inches in diameter or greater; however, smaller roots that interfere with the installation of new work may be cut. Cut smaller roots with sharp pruning instruments, but do not break or chop roots. Excavate root systems by hand in areas where new construction is required within protected areas. Use a narrow-tine spading fork to expose roots. Cut exposed roots back from the new construction. Do not permit exposed roots to dry out before permanent backfills is placed. Provide temporary earth cover, or pack the roots with peat moss, and wrap the roots with burlap. Water and maintain the roots in a moist condition, and temporarily support and protect them from damage until they are permanently relocated and covered with backfill. Provide imported topsoil backfill to cover exposed roots in soil cuts. Do not overload root zones by placing backfill above the existing grade.

Protecting, Restoring, or Modifying Irrigation System: The work under this item will consist of testing, reconstructing, or modifying the existing irrigation systems that are damaged by the construction or as specified in on the Project Plans for modification. Prior to construction activities, the Contractor will stake areas that are designated to be disturbed. The Contractor, along with City Representatives, will meet with the maintenance representative, owner, owner representative, for each area within the project that is designated to be disturbed to determine where the existing and functioning irrigation system is located and how it is operated. The Contractor will be required to repair and or replace all disturbed or damaged irrigation components to 100 percent operational. Contractor will ensure that all reconnections (water and power) have been tested and approved by City Representatives prior to back filling. Prior to final acceptance and during the maintenance period specified, the contractor and the City Representatives will meet again with the designated representative to engage each and every irrigation system that has been disturbed or that is adjacent to this project. The Contractor will ensure that each system has been returned to a fully operational and functional system and that all deficiencies have been corrected. All work will comply with these plans and Technical Specifications.

The underground location of the irrigation facilities is unknown. The Contractor will take care to minimize disturbance to these areas.

All construction will be coordinated to ensure that the existing irrigation system and its associated electrical controls are fully functional within 24 hours of modifications. Work activities that require more than 24 hours of outage will be coordinated with City Representatives for approval and alternate irrigation methods such as truck watering or temporary “rain or rent” systems will be required as directed by City Representatives. The cost of alternate irrigation methods necessary due to extended irrigation system outages will be at the Contractor’s expense, at no cost to the Department.

All work will be in accordance with the details shown on the Project Plans, or as directed by City Representatives and the requirements of these Specifications. All work will be inspected and approved by City Representatives prior to backfilling and will comply with all the requirements of Section 808 Water Distribution as specified in the most recent edition of the ADOT Standard Specifications for Road and Bridge Construction.

Repair/Restoration: Contractor will restore all landscape areas and other surface improvements that were to remain in place, but that have been damaged by the Contractor’s actions or omissions. Restore landscape areas as nearly as possible to the original condition.

Repairing Damaged Plants: Where damage to vegetation has occurred, Contractor will prune plants in accordance with Tree Care Industry Association (TCIA) standards to remove branches from the work area, and where needed to maintain the health of the plant. Remove material in a manner that yields minimal impact and is approved by City Representatives.

Replacing Damaged Plants: Contractor will remove plants that were identified by City Representatives to remain in place, but that are damaged during the course of the work to an extent that they cannot be repaired; and replace the damaged plants with new plants of the same type and value. Remove and replace damaged plants as directed by the City Representatives. Base the value of plants that are to be replaced on the criteria found in the Council of Tree and Landscape Appraisers' "Guide for Plant Appraisal", as evaluated by City Representatives. Contractor will remove and replace damaged plants at no additional cost to the City. Plants will be replaced at the following sizes or as directed by City Representatives:

<u>Existing Plant Material Size</u>	<u>Replacement Size</u>
Trees:	
2" Caliper	24" Box
4" Caliper	36" Box
6" Caliper	54" Box
All Existing Shrubs	5 Gallon

Clean up the ground areas under plants remaining in place as directed by City Representatives. Wash off foliage that becomes soiled, or when directed to do so by City Representatives. Remove materials that fall or flow into protected areas. Provide protective barriers as needed or as directed by City Representatives to prevent materials from falling or flowing into protected areas.

Waste Management: Contractor will gather and dispose of spoils and vegetative waste, including dead and damaged plants and the trimmings accumulated from the operations to clear and remove existing vegetation. Dispose of spoils and vegetative waste off-site in conformance with the regulations imposed by the local authorities, and in an area approved for such disposal by the local authorities.

Maintenance of Vegetation: Contractor will care for and maintain existing vegetation within protected areas as indicated on the Project Plans. Provide water and labor as needed for plant health, growth, and for washing down soiled foliage. Provide fertilizer, deep root fertilization, pesticides, anti-desiccants, and other materials and labor as needed to maintain the existing plants in a healthy and growing condition. Provide plant maintenance for the duration of the Contract, until Final Acceptance.

Record Drawings: The Contractor will keep and maintain separate record drawings ("field redlined record drawings"), corrected shop drawings, or other drawings necessary for the Engineer to show the landscape and irrigation work as constructed. These field redlined record drawings will be kept on the worksite and they will be maintained clear, accurate and current as changes occur that may differ with the bid set construction documents and addenda. All landscape and irrigation related elements buried or backfilled will be recorded in the "field redlined record drawings" prior to burial and backfilling occurs. The Contractor will submit the updated field redlined record drawings with monthly pay estimates to City Representatives. Complete field redlined record

drawings that the Contractor maintains will be submitted to City Representatives in a format that will allow City Representatives to create the formal record drawings. The Contractor will submit the field redlined record drawings to City Representatives prior to the end of each construction phase. No extra measurement or direct payment will be made for this work; the cost being considered included in the price of the contract items.

Measurement and Payment:

Landscape / Irrigation Restoration Areas will be measured per square yard and will be paid for at the contract unit price per square yard, which will be full compensation for the work, complete in place, including all costs, materials, equipment, labor, and operations necessary for the furnishing and full restoration of all plant materials, decomposed granite, turf grass, drip and sprinkler irrigation, and other miscellaneous items to the satisfaction of City Representatives.

ITEM NO. 67 SCH. 40 PVC IRRIGATION PIPE SLEEVE 2 IN

Description:

The work under these items will consist of furnishing all materials, labor and equipment necessary to install 2-inch pipe sleeves as specified in the Project Plans, or at locations determined on site at the time of installation in accordance with the requirements of ADOT Standard Specifications, these Technical Specifications, and approved by the City Representative.

Materials:

Irrigation pipe sleeves will be PVC Schedule 40, belled ends, solvent weld. Pipe and fittings will conform to the requirements of Subsection 808-2.01 (I) (1) of the ADOT Standard Specifications.

Construction Requirements:

All sleeve installation will conform to the plan detail when crossing paved roadways and 18 inches minimum when placed beneath a sidewalk.

Sleeves will be installed through the use of open trench.

The Contractor will locate all existing utilities prior to the installation of the sleeves.

The Contractor will repair any existing utilities damaged during the sleeve installation at no cost to the City.

Measurement and Payment:

Irrigation Pipe Sleeves will be measured per linear foot of pipe furnished and installed and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place, as described herein and/or on the Project Plans including pipe, and all trenching, bedding, backfill, compaction, trench shoring, potholing, utility locating and incidentals as specified herein and as shown on the Project Plans.

No additional payment will be made for trench shoring, supplying the sand bedding material or in coordinating the efforts with City Representatives in verifying all sleeve locations, the cost being considered incidental to this item.

- ITEM NO. 68 CLASS 200 PVC IRRIGATION PIPE ¾ IN**
- ITEM NO. 69 CLASS 200 PVC IRRIGATION PIPE 1 IN**
- ITEM NO. 70 SCH. 40 PVC IRRIGATION PIPE 2 IN**

Description:

The work under these items consists of furnishing all materials, labor, and equipment necessary to install polyvinyl chloride (PVC) pipe and fittings of the various sizes complete, including excavation and backfilling at the locations as specified in the Project Plans, Details, and these Technical Specifications.

Materials:

Pipe and fittings will be polyvinyl chloride, hereinafter PVC, conforming to the requirements of Subsection 808-2.01 (I) (1) of the ADOT Standard Specifications.

All materials and fittings will be new and of the manufacturer's most current design. Plastic pipe and fittings will be installed in accordance with the requirements specified herein and the manufacturer's recommendations.

Bedding and Cover Material:

Bedding and cover material for PVC piping, flexible emitter hose and 24-volt wiring will conform to the following gradation requirements when tested in accordance with Arizona Test Method 201:

Sieve Size	Percent Passing
No. 4	100
No. 16	30 - 80
No. 50	0 - 30
No. 100	0 - 25
No. 200	0 - 20.0

Construction Requirements:

Installation of PVC pipe and fittings will conform to the requirements of Subsection 808-3.03 of the ADOT Standard Specifications.

All piping will be installed as detailed on the Project Plans and will have a minimum cover as shown.

The Contractor will furnish to City Representatives, prior to pipe installation, all installation instructions as published by the plastic pipe and fitting manufacturers. Installation of PVC piping and fittings will be in accordance with the published instructions, the project documents and as directed by City Representatives.

Sub-main and lateral pipe sections downstream of control valves with hydraulic flows of less than 0.5 gallons per minute as shown on the Project Plans will be thoroughly flushed and have the remote control valve's flow control stem properly adjusted, all to the satisfaction and approval of City Representatives. The cost for this work will be included in the cost of contract items.

No emitter laterals or piping will be installed through or beneath plant pits. Minimum distance between plant pit perimeter and piping will be 18 inches. The maximum distance between the plant pit and piping will be governed by maximum emitter supply tubing lengths as specified on the Project Plans.

All trenches excavated for the irrigation systems will be backfilled within five working days from the day they are excavated. Barricades will be placed by excavated ditches located within 30 feet of the traveled way in a manner acceptable to the Project Manager. Open ditches beyond 30 feet from the traveled way will be delineated in a manner acceptable to City Representatives.

Flush end caps will be installed as shown on the Project Plans or as directed by City Representatives to promote good flushing of the entire irrigation system.

The emitter lateral end cap assembly will be installed at the locations indicated on the Project Plans and in accordance with the requirements of the Technical Specifications.

The end plug unit with resilient sealed, unscrewing cap will be of the socket, solvent-weld type, constructed of glass-filled polypropylene. The PVC lateral-to-riser fitting will be a socket, solvent-weld, Schedule 40, 90-degree elbow fitting. The flexible PVC hose will be manufactured from 100 percent virgin polyvinyl chloride resin and will have the following physical characteristics:

O.D.	0.840 inch
I.D.	0.546 inch (min.)
Wall	0.147 inch (min.)

Measurement and Payment:

Irrigation Pipe will be measured on a per linear foot basis and will be paid for by the linear foot, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans.

ITEM NO. 71 WATER METER (1 IN LANDSCAPE IRRIGATION SERVICE)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install new potable water service with meter, connections, corporation stop, curb stop, appurtenant fittings, water meter box and cover, copper service pipe (type K) and pavement replacement as required at the location shown on the Project Plans or as directed by City Representatives. The Contractor will perform all required operations to install the new water service, including coordination, inspections, permitting, account establishment, and any fees, with the City of Chandler.

Materials:

All materials will conform to City of Chandler Standards unless otherwise as specified in the Project Plans or in these Technical Specifications.

Construction Requirements:

Potable water service construction will conform to City of Chandler Standards and the details in the Project Plans.

The Contractor will measure the static water pressure on site at each point of connection as soon as practical and report the results in writing to City Representatives.

The Contractor will coordinate the installation of the water service, including completing any applications and obtaining any necessary permits for the water service installations. The accounts for the new meters to serve medians will be established in the name of:

City of Chandler Streets Department

The Contractor will be responsible to secure from the City of Chandler all permits, pay all fees and deposits. The City will directly pay for all development and impact fees normally associated with the meter installation in medians. Once installed, the City will pay for all water delivered.

Measurement:

Water Meter (1 In Landscape Irrigation Service) will be measured as a unit for each. No separate measurement will be made for copper service line.

Payment:

The Contractor will be reimbursed for the exact amounts paid to the City of Chandler for each water service with meter installed. The Contractor will provide the City of Chandler receipts for each meter installed. The Contractor may include a nominal fee for the required coordination with the City.

Water meters, where indicated, will be installed by the City of Chandler. The City of Chandler has agreed to waive water system and resource development fees. Contractor will pay City of Chandler for required meter installation cost and required permits.

ITEM NO. 72 1 IN BACKFLOW PREVENTION UNIT (REDUCED PRESSURE)

Description:

The work under this item consists of furnishing and installing the backflow prevention unit assemblies for landscape irrigation, to include all grading, excavation and backfill, the backflow preventer unit, required pipe and fittings, concrete slab, an enclosure, and the removal and disposal of all excess materials off-site. Separate enclosures as described in these Technical Specifications are required at all locations.

The work will also include the provision and installation of pipe and fittings from the two-inch water meter to the backflow prevention unit, and all other miscellaneous labor, equipment and materials required to construct the backflow prevention assembly as detailed in the plans, and according to the requirements of these Technical Specifications.

Materials:

The backflow preventer will conform to the requirements of Subsection 808-2.01(A)(3) of the Standard Specifications.

The copper pipe and fittings in the bid items will be as detailed and in accordance with the following:

1. The copper pipe will be Type "K" conforming to the requirements of ASTM B-88 for backflow prevention assemblies.

2. The copper or cast bronze fittings will conform to the requirements of ANSI STD B 16.22 and ANSI STD B 16.18.

The concrete pad will be as shown on the plans and concrete will be 2,500-psi at 28 days and will conform to the requirements of Section 922, Utility Concrete for Miscellaneous Construction, of the Standard Specifications. Reinforcing steel will conform to the requirements of Section 1003, Reinforcing Steel of the Standard Specifications.

The steel enclosure for the backflow prevention unit will be pre-manufactured. A commercial grade lock with two keys, compatible with the City of Chandler Maintenance Department locking system and approved by City Representatives, will be provided for each enclosure. The pre-manufactured enclosure will meet the following material requirements:

- The enclosure will be welded to the pipe and angle frame at 4-inch-on center and will be coated with heat applied powder-coated finish color, Desert Tan.
- The enclosure will be hinged on one end in order to allow access. The enclosure will be secured to the concrete slab with eyebolts, brackets and lock hasps provided by the manufacturer.
- The enclosure will be secured to the concrete slab on the other end by an eyebolt staple and a steel strap designed to fit over the eyebolt.
- The enclosure will be constructed of bent 1-¼ inch Schedule 40 pipe, 1 x 1 x 1/8 inch angle steel bottom rail and ½ -inch-13 gauge rolled, expanded steel.
- The enclosure will be the size recommended by the enclosure manufacturer for the City of Chandler model of backflow preventer used and will be a minimum of 10 inches wide, 24 inches high and 20 inches long and large enough to accommodate the controller and backflow preventer as detailed.
- A lock shield will be provided to protect the lock from vandalism. The lock shield will be constructed of 3/16-inch-thick steel and will measure approximately 2 inches by 4 inches. The lock shield will be an integral part of the enclosure.

Construction Requirements:

All backflow prevention reinforcing, anchor bolts and other embedded items will be in place and inspected by City Representatives prior to placing the concrete slab.

The concrete slab will be constructed at the locations and in accordance with the details shown on the project plans, these Technical Specifications and will be approved by City Representatives.

The contractor will excavate and grade the area of the enclosure as shown on project

plans and as directed by City Representatives.

The surfaces upon which the enclosure slab is to be placed will be fine graded and compacted to a density of not less than 95 percent of the maximum density in accordance with the requirements of the Material Testing Manual of the Materials Section.

Concrete work will conform to the applicable requirements of Section 601 of the Standard Specifications. Unless otherwise detailed or specified all exposed concrete slabs will have a light, broom finish.

The enclosure will be installed according to the manufacturer's installation recommendations which describe how to set the enclosure on a partially hardened slab, while still embedding the eyebolt in the slab using slab pour voids and a wetter, more plastic concrete. Eyebolts, with nuts attached near the end of the threads will be wrapped in multiple layers using electrician's vinyl tape. Tamper-proof bolts provided by the manufacturer will be used to prohibit removal of brackets.

No penetrations will be located within eight inches of the edge of the concrete slab.

The Contractor will provide the conduit and stub-ups through the enclosure concrete slab at the locations shown for in coming and out-going supply lines.

Maximum length of copper pipe run from the water meter to the backflow preventer will not exceed 36 inches, or as approved by the water provider and City Representatives.

The Contractor is responsible for obtaining all permits necessary for the backflow preventer installation and the performance of all required testing and certification. The tester will be State Certified to perform the required tests.

The Contractor will measure the incoming water pressure at each new backflow prevention unit and report the results in writing to City Representatives, within (5) five working days from activation of the backflow preventer.

Measurement:

The 1 In Backflow Prevention Unit (Reduced Pressure) will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, as specified herein and in the project plans, including any coordination required with City and furnishing and placing steel enclosure and concrete pad.

No additional payment will be made for backflow prevention testing, the cost being considered incidental to this item.

ITEM NO. 73 1 IN MASTER VALVE

Description:

The work under this item consists of furnishing and installing master valves complete, including all necessary pipe and fittings, pressure regulator riser, wye filter, union, ball valve, ID tag, valve box and appurtenances, excavation, and backfilling as required at the locations as specified in the Project Plans, Details, and these Technical Specifications.

Materials:

The valve will be a normally closed, electronically-actuated, diaphragm-operated, remote-control valve. The valve will be capable of operating between 20 and 150 PSI with a flow range of between 20 and 150 GPM.

The valve will be available in either a globe or angle configuration in the 1-inch models with the 1-1/2- and 2-inch models having combination globe/angle body styles. All valve models will have Female National Pipe Thread (FNPT) inlets and outlets. When specified, the valve will be configured with British Standard Pipe threads. An optional Male National Pipe Thread (MNPT) inlet and outlet model and a MNPT inlet by Poly Barb outlet model will be available in the 1" globe style body. Both the 1-inch globe and angle valve models will be available with an optional, non-rising stem-type, flow control mechanism. This mechanism will be operable with a slotted screwdriver or with a removable flow control handle.

The body and bonnet will be molded of non-corrodible PVC, rated to 150 PSI. The bonnet bolts will be serviceable with a slotted screwdriver, Phillips screwdriver, or a hex wrench, and will be held captive in the bonnet when the bonnet is removed from the valve body. The diaphragm assembly will be of molded construction and will have a Santoprene seating material. The valve will be equipped with an internal filter as well as a self-cleaning metering rod, so only clean water can enter the solenoid chamber.

The valve will be available with an optional adjustable pressure-regulating device with a calibrated dial for setting of the outlet pressure. (The regulator will be capable of adjusting the outlet pressure from between 20 and 100 PSI when inlet pressure is 15 PSI or greater than regulated outlet pressure.) The regulated downstream pressure will remain constant regardless of variations in upstream pressure. The regulation will be maintained when valve is manually operated with use of internal bleed valve.

The standard solenoid will be a 24 VAC unit with a 350 mA inrush current and 190 mA holding current at 60 cycles and a 370 mA inrush current and 210 mA holding current at 50 cycles. When specified, the unit will be equipped with a DC latching solenoid for use with 12-volt battery-operated controllers. The solenoid will be an encapsulated, one-piece unit with captive plunger. It will be equipped with manual internal bleed capability to release the upper chamber water to the downstream piping, allowing the valve to open. The valve will have a manual bleed screw that provides an additional method for

manual operation of the valve.

Construction Requirements:

The Contractor will install the master valve at the locations as specified in the Project Plans Details.

Construction requirements will conform to the requirements of Section 808 Water Distribution of the ADOT Standard Specifications.

The Contractor will install the required conduit and conductors between the master valve and the automatic controller as detailed on the Project Plans and make necessary wire connections as required and directed by the manufacturer.

The master valve will serve as a shut-off safety valve when the pressure drops below a set pressure sensed by a pressure transducer.

Each master valve will be installed as detailed on the plans and per manufacturer's recommendations.

Measurement and Payment:

1 Inch Master Valve will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including master valve and all necessary items as specified herein and in the Project Plans.

ITEM NO. 74 CONTROLLER, AUTOMATIC (6 STA)

Description:

The work under this item consists of furnishing all labor, materials, equipment for installing a battery-operated irrigation controller, complete in place, including steel enclosure, conduit, DC latching control, common and spare wires, pull boxes, excavation and backfilling at the locations specified in on the Project Plans, Details, and in accordance with these Technical Specifications.

Materials:

The irrigation system controllers (6 Sta) will be pre-assembled commercial grade 6 station battery-operated controllers with knockouts for field wires and optional AC power. The enclosure shall be stainless steel for outdoor use, mounted on metal pole sweep attached to a mounting adapter secured in concrete, as specified and detailed on the Project Plans.

Controller display shall be high resolution digital LCD. The control panel shall have buttons to select values, a dial to selection functions, a hard-reset feature returning existing settings to factory conditions, a removable panel to shield and allow access to the wiring terminals, and a sensor switch to bypass or activate a wired sensor.

The controller shall be powered by 6 AA (1.5V) alkaline batteries. Each station output shall supply .05 mA 11 VDC per station current for solenoid activation. Any valves attached to the controller shall have only DC-latching solenoids of matching manufacturer.

The controller shall have a Metal Oxide Varistors (MOV) on the power input portion to help protect the micro-circuitry from power surges.

The controller shall have 6- station metal screw and washer terminals.

The controller shall have 1 sensor terminal input for a soil moisture sensor, freeze sensor or rain sensor that prevents the controller from irrigating when rainfall, freeze or moisture exceeds a pre-selected amount. The controller shall provide power from the controller to the wired sensor. The controller shall work with normally-closed wired sensors. The controller shall have 1 built-in pump/master valve (P/MV) terminal output.

The controller shall have 3 independent programs with unique day schedules, start times, and station run times. The controller shall have 4 start times per program per day. The controller shall operate 1 program at a time.

The controller shall have a weekly 7-day schedule that allows user to choose day(s) of week for desired watering. Interval watering shall be between 1 and 31 days. It shall also have a 365-day calendar clock to accommodate true odd and even watering. Operation shall be available in automatic, semi-automatic and manual modes. All programming shall be accomplished by use of a programming dial and selection buttons with user feedback provided by a LCD display. Watering times shall be available from 0 minutes to 4 hours in 1-minute increments per station. The controller shall provide the option to turn off specific watering days Monday through Sunday to comply with any state and local regulations. The controller shall have a programmable rain delay that turns off the controller for a predetermined period from 1 to 7 days. The controller shall be equipped with a sensor bypass switch that allows the user to override a wired sensor that has suspended watering. The controller shall store and restore program data for easy retrieval

The controller shall have seasonal adjust allowing for station run time adjustment from 10% to 150% in 10% increments to compensate for weather changes. The controller shall provide total irrigation run times for each station. The controller shall have test programming to verify each station running successfully.

The DC-latching control and common wire for operation of remote control valves will conform to the requirements of Subsection 808-2.01 (F) of the ADOT Standard Specifications. All control ("hot") wire will be of a contrasting color to white common or ground wire. Black wire will not be acceptable for use on a DC-latching control circuit. Control wires to shrub valves will be different color than those to tree valves. Wire color will be as approved by City Representatives.

Two spare wires, sized to match the common wires for the controller and colored different than the control and common wires used, will be run from the controller to the furthest valve on each wire segment. Loop the spare wires through each valve box on the segment

coiling a 15-foot coil within each valve box.

Pull boxes will match the valve box as specified under the 1" Remote Control Valve, Electric item.

Control and common wire sizes will be of sizes indicated on the Project Plans. Individual control wires will be installed to each remote control valve. Common wire installation will be as detailed on the irrigation system plans (wiring schedules). Common wires within wire segments will carry the entire distance to the controller. Each wire segment will have at least one separate common wire.

Construction Requirements:

The controller enclosure will be installed per manufacturer's recommendations.

Wire connections at remote control valves and at field splices will be made with epoxy resin filled type wire connectors installed as recommended by the manufacturer. Necessary splices will be made at remote control valve boxes, or separate splice boxes. Valve or junction boxes will be of type specified in the 1" Remote Control Valve, Electric item.

Control and common wire placed through pipe sleeves will be encased in 1-inch (minimum) schedule 40 PVC electrical sleeves for full length of the pipe sleeves. Conduit will be increased in size as may be necessary for additional wires or required by the NEC.

All wire will be installed as detailed on the Project Plans and will have a minimum cover as shown.

Control and common wire throughout the project will be neatly bundled and taped with plastic electrical tape at 10-foot intervals between splices or connections and as directed by City Representatives.

Contractor will prepare and implement a 12-month irrigation schedule, based on seasonal changes, with a minimum of three adjustments to the system within the year. The City Representatives will approve the schedule prior to implementation. The controller will be programmed based on time and flow. The monthly projected hours of irrigation as well as gallons to be delivered, by valve group, according to the 12-month irrigation schedule will be provided to City Representatives within 30 days following the start of the Phase II establishment period.

A wiring schematic will be placed in each controller cabinet. The schematic will show all wire connections including the wire connections at the controllers and field splices in pull or junction boxes, such as those not occurring in scheduled and planned valve boxes.

The work will also include that the Contractor supply a copy of the controller program for approval by City Representatives.

No separate payment will be made for wire, installation, splice boxes, and conduit.

A test of the irrigation system in whole will be accomplished prior to landscape

installation, at close of the landscaping construction phase, and monthly during Landscape Establishment.

Testing of the system mainline, sub-mains, and remote control valves will be performed at a hydrostatic pressure of 150-pounds per square inch (psi) for a minimum of 2- hours.

City Representatives will advise the Contractor when additional flushing of the irrigation system is required in addition to those specified, in order to ensure proper operation of system components.

At the completion of the landscaping construction period, the Contractor will deliver the following to City Representatives: two copies of the Operations & Maintenance manual, and one copy of the controller irrigation schedule.

Measurement and Payment:

The Automatic Controller (6 Sta) will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, as described and specified herein and in the Project Plans.

No additional payment will be made for automatic controller and enclosure installation, the cost being considered incidental to this item.

ITEM NO. 75 1 IN REMOTE CONTROL VALVE, ELECTRIC

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing the remote control valves complete, including all necessary pipe and fittings, pressure regulator riser, wye filter, union, ball valve, ID tag, valve box and appurtenances, excavation, and backfilling as required at the locations specified in the Project Plans, Details, and these Technical Specifications.

Materials:

Each remote control valve will conform to the requirements of Subsection 808-2.01 (D) (1) of the ADOT Standard Specifications with the following exceptions:

The remote control valve will have a self-cleaning stainless steel screen that cleans itself continuously during flow/operation, as provided by ordering the optional automatic filter system. The remote control valve body will be constructed of glass filled nylon and will have a working pressure rating of 220 PSI and an operational flow range of 0.1 to 40 gallons per minute. The solenoid plunger and the bonnet bolts will be captive.

All remote control valves and automatic controllers will be compatible and fully functional in all modes.

All valves will include a plastic scrubber to clean the stainless steel screen of grit and other debris.

Valve ID tag will be made of Polyurethane Behr Desopan material, tan color, and 3" x 4" size will be installed on valve control wires with permanent printed black color 'controller letter – valve (station) number' on one side and bilingual "Warning Recycled Water Do Not Drink" message on other side.

Each regulator will meet the following minimum requirements:

Each regulator will have a flow range from 0.1 GPM to 8 GPM with a regulated nominal outlet pressure of 30 PSI with an inlet pressure range of 0 to 150 PSI.

Inlet fittings will be 3/4 inch Female Pipe Threaded (FPT) inlet and outlet for installation, as detailed on the Project Plans.

The pressure regulator will be of the non-adjustable pre-set type consisting of a two-piece, sonic welded body molded from acrylonitrile butadiene styrene containing a valve housing of acetyl plastic and a rolling diaphragm of ethylene propylene (EPDM) material. The internal spring will be stainless steel.

The wye filter will be 3/4" inch brass body with 3/4" Male Pipe Thread (MPT) inlet and outlet. The filter will be accessed by unscrewing the cap from the body. The cap to body seal will be made with an "O" ring. The filter screen will be 100 mesh stainless steel. The pressure rating of the filter will be a minimum of 150 PSI.

A schedule 80 PVC union with minimum rating of 150 PSI will be installed after pressure regulator and filter to facilitate removal of all items within valve box if necessary.

The Contractor will provide an in-line, full port, single union, brass ball valve type shutoff valve with the following characteristics:

Pressure rating	220 PSI
O-rings	EPDM
Seat	EPDM or PTFE
Connections	FIPT threaded socket

The valve box, cover and necessary extensions will be as shown on the Project Plans and will be manufactured of molded, virgin plastic materials conforming to the following physical characteristics:

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>REQUIREMENT</u>
Tensile Strength	D-638	3400 PSI (minimum)
Deflection Temp @ 66 PSI Stress	D-648	170 degrees Fahrenheit

The valve box will be rectangular in configuration, measuring approximately 25 1/4 inches x 15 3/4 inches on the bottom by 15 inches in height and will be integrally colored tan. Box extensions will be of the top extension type with integral locking clips, and when

installed will provide minimum 6-inch height extension. Valve box lids will be integrally colored tan.

Valve boxes will receive 1” height heat branding labeling of the box indicating the ‘controller letter – valve (station) number’.

Geotextile fabric will be as indicated on the Project Plans details and conform to the following minimum material requirements:

Manufacturing process:	Spunbound
Material:	Polypropylene
Bonding process:	Thermal
Weight:	3.0 ounce minimum
Puncture resistance:	30 lbs. minimum
Mullen burst:	140 pounds per square inch
Trapezoidal tear	40 pounds minimum
Permeability-vertical water flow	85 feet per minute per square foot

Gravel for sumps will be rounded washed pea gravel conforming to AASHTO M-43 #8.

The control valve, pressure regulator, wye filter, ball valve, union, and ID tag will be completely exposed and accessible within the valve box. Box extensions will be installed as necessary to expose valves and appurtenances as required.

Measurement and Payment:

1 Inch Remote Control Valve, Electric will be measured as unit per each and will be paid for at the contract unit price, per each, which price will be full compensation for the work, complete in place, including all necessary pipe and fittings, pressure regulator, wye filter, union, ball valve, ID tag, valve box, and appurtenances, excavation, and backfilling as described and specified herein and as shown on the Project Plans.

No additional payment will be made for the gravel sump or geotextile fabric, the cost being considered incidental to this item.

ITEM NO. 76 FLUSH END ASSEMBLY (DRIP)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing lateral flush valve assemblies at all locations as specified in Project Plans, Details, and these Technical Specifications.

The required Flush Device Assembly (Drip) components include ball valve, necessary pipe, fittings, valve box, and all excavation and backfilling. Any removal and salvage after testing will be incidental to this item with no additional cost to the City.

Materials:

The lateral flush valve assembly ball valve will be constructed of PVC with ¾” female hose thread swivel inlet and ¾” male hose thread outlet.

Flex pipe will be ¾” schedule 40 I.P.S.

The valve boxes for lateral flush valves will be a round, one-piece 7” inch diameter at the top with a depth of 10 ¼ inches and with bolt down T-style cover.

Valve boxes will receive 1” height heat branding labeling of the box indicating “FC” for Flush Cap. Gravel sump and filter fabric will conform to Item 8080168 above. Valve box will be tan in decomposed granite areas if using potable water, and green in turf if using potable water.

Install the Valve Flush Device Assembly (Drip) with female hose swivel as inlet connected to Schedule 40 male adaptor and Schedule 40 flex pipe per the plan details.

Measurement Payment:

Flush Device Assembly (Drip) will be measured as a unit for each and will be paid for at the contract unit price per each, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans.

ITEM NO. 77 MULTI OUTLET EMITTER ASSEMBLY

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing the emitter assemblies, multi-outlet, including excavating and backfilling, at the locations specified in the Project Plans, Details, and these Technical Specifications.

Materials:

The emitter case will be made of durable black, heat resistant acetyl plastic material. It will be resistant to temperature variation, ultraviolet radiation, smog, (ozone), and common liquid fertilizer and weed spray. The case will completely encompass the silicone diaphragm, protecting it from potentially harmful environmental factors.

The emitters will be of the non-compensating, continuous flushing type, based on the pressure cascade principal using a series of flexible orifices.

The emitter will be capable of continuous, clog free operation with 30 mesh (minimum) filtration. The emitter will be capable of being installed in all positions and maintain its given flow characteristics. The emitter will be non-adjustable and the flow regime will be maintained by flexible orifice silicone diaphragms.

The emitter will function with a system pressure range of 15 PSI minimum to 30 PSI maximum. The emitter flow variation of the 1 GPH emitter will not exceed 1.06 GPH at 120 degrees F. or 1.07 GPH at 150 degrees F. Emitter manufacturing variability will not exceed 0.05 GPH.

The multi-outlet emitter will be capable of delivering one of the following quantities from each of the six outlets of the emitter regardless of the number of outlets open:

G.P.H.	at	P.S.I.
0.60		20
0.71		25
0.80		30
	or	
1.00		20
1.15		25
1.34		30
	or	
2.00		20
2.30		25
2.68		30

The flexible polyethylene supply tubing will be for pressure application, manufactured from 100 percent Union Carbide G-Resin 7510 Natural 7 virgin resin with minimum two percent carbon black content and with the following physical characteristics:

I.D. 0.250-inches
 O.D. 0.350-inches
 Wall Thickness 0.050-inches

The flexible distribution tube for use with multi-outlet emitter will be a black vinyl blend suitable for use as emitter outlet tubing with the following physical characteristics:

I.D. 0.160-inches
 O.D. 0.220-inches
 Wall Thickness 0.030-inches

The distribution tube will be capable of being bent around a 7/8 inch mandrel without kinking.

The tube stake required to position the distribution tube will be manufactured of 20 percent glass-filled polypropylene, minimum 6-inch overall length with slotted top to retain the distribution tube as detailed at the location(s) shown on the Project Plans.

Multi-outlet emitters will consist of the emitter unit, the 1/2" PVC lateral pipe, the 1/2" flex PVC nipple riser, flexible vinyl distribution tubing, emitter valve box, geotextile filter fabric, pea gravel sump and PVC fittings necessary to connect the emitter to the 3/4" PVC supply lateral pipe.

The emitter valve box will be constructed of tan colored HDPE (high-density polyethylene) in a round conical shape with a 6 1/8" top diameter, 8" bottom diameter and an overall height of 8 3/4". The cover will be T-style fastened to box by twist and lock method.

The geotextile fabric for use beneath the pea gravel sump will conform to ADOT Standard Specification section 1014-4.02 Moderate Survivability Fabric (B) Woven.

The supply pipe from the 3/4" PVC lateral to multi-outlet emitters will be 1/2 inch Class 315 PVC with Schedule 40 PVC 90-degree elbows.

Construction Requirements:

The multi-outlet emitter will be placed in an emitter valve box below grade with the distribution tube extending to the plants as detailed on the Project Plans.

The supply tubing for City of Chandler emitters will extend from the 3/4" PVC lateral to the emitter and enable the emitter to be located so that the distribution tubing from the emitter to the plant does not exceed 15-foot in length.

The supply pipe for emitters will be 1/2" Class 315 PVC. The 1/2" PVC will enable placement of the emitter so that the distribution tubing can be placed per the Irrigation Emitter Layout detail included in the Project Plans. The supply pipe will be placed at 12" depth.

The number of emitters per riser circuit, as shown on the Project Plans, is approximate. The Contractor will add no more than two multi-outlet emitters per circuit, as detailed. Any additional emitters required and exceeding the above indicated amount must be approved by City Representatives prior to installation.

The Contractor will maintain a set of record data for all irrigation lines and equipment coordinating with the City of Chandler's GIS requirements. All GIS data collection of irrigation equipment to complete the record drawings that are tied to City coordinates will remain the responsibility of the Contractor at no cost to the City.

Measurement and Payment:

Multi Outlet Emitter Assembly will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans.

No additional payment will be made for supply tubing, 1/2" PVC supply pipe, emitter valve box, geotextile fabric, pea gravel sump, distribution tube, or hose stake the cost being considered incidental to this item.

No additional payment will be made for deep water drip stakes, the cost being considered incidental to this item.

No additional payment will be made for GIS data collection and for producing the required record drawings, the cost being considered incidental to this item.

ITEM NO. 78 REMOVE PAINT STRIPE

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to remove existing striping at the locations as specified in the Project Plans.

Construction Requirements:

For obliteration elements, the Contractor will not be allowed to utilize portable grinders that destroy the surface of the pavement. The Contractor will use water blasting for stripe removal and will not damage the existing pavement.

Measurement and Payment:

Remove Paint Stripe will be measured per linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place.

- ITEM NO. 79 4 IN WHITE TRAFFIC PAINT STRIPE**
- ITEM NO. 80 4 IN YELLOW TRAFFIC PAINT STRIPE**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic paint stripes at the locations as specified in the Project Plans.

Materials:

The work under these items will conform to the current editions of the City of Chandler Standard Details C-614, C-620 and C-623 and ADOT Standard Specifications Section 708.

Construction Requirements:

The work under these items will conform to the layouts in the Project Plans and City Detail C-614, unless otherwise revised by the City Representative.

Measurement:

4 Inch White Traffic Paint Stripe and 4 Inch Yellow Traffic Paint Stripe will be measured per linear foot. No measurement will be made for the number of linear feet of gaps in dashed lines.

Payment:

The accepted quantities of 4 Inch White Traffic Paint Stripe and 4 Inch Yellow Traffic Paint Stripe, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place.

ITEM NO. 81 PAINT MEDIAN NOSE

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to paint median noses at the locations as specified in the Project Plans.

Materials:

The materials under this item will conform to City Detail C-617.

Construction Requirements:

The work under this item will be completed per City Detail C-617.

Measurement:

Paint Median Nose will be measured as a unit for each bull nose painted and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

- ITEM NO. 82 4 IN WHITE THERMOPLASTIC TRAFFIC STRIPE**
- ITEM NO. 83 THERMOPLASTIC/PREFORMED SYMBOL BIKE LANE MARKING SET**
- ITEM NO. 84 THERMOPLASTIC/PREFORMED SYMBOL LEFT TURN ARROW**
- ITEM NO. 85 THERMOPLASTIC/PREFORMED SYMBOL RIGHT TURN ARROW**

Description:

The work under these items consists of furnishing all labor, equipment and materials, and equipment necessary for the installation of thermoplastic striping and symbols at the locations as specified in the Project Plans.

Materials:

The work under these items will conform to the current editions of the City Details C-614, C-620 and C-623, and ADOT Standard Specifications Section 704.

Construction Requirements:

The work under these items will conform to the layouts in the Project Plans and in accordance with City Detail C-614, unless otherwise adjusted by the City Representative.

Measurement:

4 Inch White Thermoplastic Traffic Stripe will be measured per linear foot. No measurement will be made for the number of linear feet for gaps in dashed lines.

Thermoplastic/Preformed Symbols for Bike Lane Marking Set, Left Turn Arrow, and Right Turn Arrow be measured as a unit for each pavement symbol installed.

Payment:

The accepted quantities of 4 Inch White Thermoplastic Traffic Stripe, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place.

The accepted quantities of Thermoplastic/Preformed Symbols for Bike Lane Marking Set, Left Turn Arrow, and Right Turn Arrow, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place.

- ITEM NO. 86 REFLECTORIZED RAISED PAVEMENT MARKER (TYPE G, CLEAR, 1-WAY)**
- ITEM NO. 87 REFLECTORIZED RAISED PAVEMENT MARKER (TYPE D, YELLOW, 2-WAY)**
- ITEM NO. 88 REFLECTORIZED RAISED PAVEMENT MARKER (TYPE H, YELLOW, 1-WAY)**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install type G, type D, and type H reflectORIZED raised pavement markers at the locations as specified in the Project Plans.

Materials:

The reflectORIZED raised pavement markers and adhesives will conform to City Detail C-622.

Construction Requirements:

The work under these items will conform to the City Details C-614, C-620 C-622, and C-623, City of Chandler Engineering & Design Standards Manual, Chapter 4 – Street Design

and Access Control, and as specified in the Project Plans.

Measurement and Payment:

Reflectorized Raised Pavement Marker (Type G, Clear, 1-Way), Reflectorized Raised Pavement Marker (Type D, Yellow, 2-Way), and Reflectorized Raised Pavement Marker (Type H, Yellow, 1-Way) will be measured as a unit for each pavement marker installed and will be paid for at the contract unit price, which price will be full compensation for the item, complete in place. No additional payment will be made for adhesive, the cost being considered incidental to this item.

ITEM NO. 89 PERFORATED SIGN POST

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install perforated sign posts at the locations as specified in the Project Plans.

Materials:

The Perforated Sign Post will conform to City Detail C-613.

Construction Requirements:

The work under this item will conform to City Detail C-613.

Measurement and Payment:

Perforated Sign Post will be measured per linear foot of sign post installed and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place.

ITEM NO. 90 PERFORATED SIGN POST FOUNDATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install concrete perforated sign foundations, including anchor, sleeve, and associated hardware to attach post to foundation at the locations as specified in the Project Plans.

Materials:

All materials required to install concrete perforated sign foundations and attachment of

post will conform to City Detail C-613.

Construction Requirements:

The work under this item will conform to City Detail C-613 and as specified in the Project Plans.

Measurement and Payment:

Perforated Sign Post Foundation will be measured as a unit for each foundation installed and will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be made for anchor, sign post sleeves, and associated hardware to attach post to foundation, the cost be considered incidental to this item.

ITEM NO. 91 FLAT SHEET ALUMINUM SIGN PANEL, HIGH INTENSITY GRADE

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install the sign panels at locations as specified in the Project Plans.

Materials:

Sign Panels will meet the requirements of the ADOT Specifications Section 608 and will conform to all applicable current editions of the City Details.

Construction Requirements:

The Sign Panels will be installed per ADOT Standard Specifications Section 608 and will conform to all applicable current editions of the City Details.

Measurement:

Flat Sheet Aluminum Sign Panel will be measured per square foot for each panel furnished and installed.

Payment:

The accepted quantities of Flat Sheet Aluminum Sign Panel, measured as provided above, will be paid for at the contract unit price per square foot, which price will be full compensation for the item, complete in place, including hardware and appurtenances require to install sign.

ITEM NO. 92	NO. 7 PULL BOX
ITEM NO. 93	NO. 7 PULL BOX W/ EXTENSION
ITEM NO. 94	NO. 9 PULL BOX
ITEM NO. 95	SPLIT NO. 9 PULL BOX

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for the installation of new pull boxes and pull boxes with extensions, including, excavation, backfill, compaction, and appurtenances at locations as specified in the Project Plans.

Materials:

All Pull Boxes, extensions and lids will be polymer concrete material and conform to the details in the Project Plans. If pull boxes details are not contained in the Project Plans, the Contractor will conform to the applicable City Details and ADOT Specifications Section 732. Contractor to coordinate with City Representatives for markings on pull box. Markings will be clearly defined and uniform in depth and will be placed parallel to the long side of the lid. Letters will be nominally one inch high.

Pull boxes lids will be rated for traffic loads in locations where subject to vehicular traffic. Each lid will be furnished with two lock-down bolts.

Concrete Pull Boxes and lids will not be used.

Construction Requirements:

All construction will be performed in accordance with the details in the Project Plans. And ADOT Specifications Section 732-3.

New Pull Boxes will be located out of sidewalks, but within the City of Chandler right of way, approximately as shown on the plans. Adjustments in pull box locations are allowed, but are subject to Inspector approval.

Pull Boxes will be installed at finished grade. The pull box will be backfilled with select excavated material and thoroughly compacted to within two inches of original grade. The compaction around the box will not cause the sides to deflect or any part of the box or lid to crack. The Contractor will replace any cracked, broken, chipped, or damaged pull boxes or lids at no additional cost to the City.

All pull boxes will be left in clean conditions, free of dirt and debris upon completion of work.

Measurement:

Pull Box and Pull Box with Extension will be measured as unit for each pull box installed including pick up, excavation, installation backfill, extension, lid, fittings, elbows, caps,

solvent, and all applicable appurtenances.

Payment:

Accepted quantities of Pull Boxes and Pull Box with Extension, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the item, complete in place, including pick up, excavation, installation backfill, extension, lid, fittings, elbows, caps, solvent, all applicable appurtenances, and disposing of surplus or unsuitable material.

ITEM NO. 96 PULL BOX, SRP LIGHTING (CONTRACTOR SUPPLIED AND INSTALLED)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the installation of SRP approved lighting pull boxes for the streetlight system in accordance with the details and requirements as specified in the Project Plans.

Materials:

SRP Lighting Pull Boxes are to be furnished by the Contractor. Material specifications will be per SRP standards and as shown in City Details C-757-1 and C-757-3. This item will include the ground rod required in each new streetlight pull box and associated conductor clamps.

Construction Requirements:

The Contractor will furnish and install the lighting pull boxes in accordance with City Details C-757-1 and C-757-3 at the approximate locations as specified in the Project Plans. All pull boxes will be placed within proximity of the streetlight pole as shown in City Detail C-757-1 and should be located in the public utility easement where available. The pull boxes will be installed at finish grade.

Measurement:

SRP Lighting Pull Box (Contractor Supplied and Installed) will be measured as unit for each pull box installed, including pick up, and installation, materials, excavation, backfilling, conductor clamps, ground rod, fittings, elbows, caps, and solvent.

Payment:

Accepted quantities of SRP Lighting Pull Box (Contractor Supplied and Installed), measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the item, complete in place. No additional payment will be

made for pick up, and installation, materials, excavation, backfilling, conductor clamps, ground rod, fittings, elbows, caps, and solvent, the cost being considered incidental to this item.

ITEM NO. 97	SCH. 40 PVC ELECTRICAL CONDUIT, 1 IN
ITEM NO. 98	SCH. 40 PVC ELECTRICAL CONDUIT, 2 IN
ITEM NO. 99	SCH. 40 PVC ELECTRICAL CONDUIT, 2 ½ IN (STREETLIGHTING PER SRP PLANS)
ITEM NO. 100	SCH. 40 PVC ELECTRICAL CONDUIT, 3 IN
ITEM NO. 101	SCH. 40 PVC ELECTRICAL CONDUIT, 4 IN
ITEM NO. 102	4 – 2 IN PVC INTERCONNECT CONDUIT
ITEM NO. 103	4 – 2 IN HDPE INTERCONNECT CONDUIT (DIRECTIONAL DRILL)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for the installation of PVC conduit with pull rope installed in accordance with the details shown on the utility company plans.

Materials:

All conduits will meet the requirements of Section 732-2 of the ADOT Standard Specifications for Schedule 40 PVC.

The materials for the Sch. 40 PVC Electrical Conduit, 2 1/2" (Streetlighting Per SRP Plans) item will include 2.5-inch diameter schedule 40 PVC, 2500lb pull tape, trench, and all other materials incidental to this item of work, conforming to SRP specifications.

HDPE conduit will have a minimum rating of SDR 11. It will have a cell classification of PE334470C (for black conduit) and PE334470E (for colored conduit) per ASTM 3350: Standard Specification for Polyethylene Pipe and Fittings Materials.

The polyethylene base resin will meet the density requirement and melt index properties described herein. The density will not be less than 0.940 and not more than 0.955 g/CM³ in accordance with ASTM D 1505: Standard Test Method for Density of Plastics by the Density-Gradient Technique. The range for the melt index will be between 0.05 to 0.5g/10 minutes in accordance with ASTM D 1238: Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer. The HDPE conduit will have a minimum Flexural Modulus, of 80,000 psi, per ASTM D 790 and a minimum tensile strength at yield of 3,000 psi, per ASTM D-638.

Additives to the base resin will be included to provide heat stabilization, oxidation prevention and ultraviolet (UV) protection. It will utilize carbon black in the range of 2 to 3 percent for long term protection against UV degradation. The minimum protection period will be one year from date of manufacture in unprotected, outdoor storage in accordance with ASTM D 1603: Standard Test Method for Carbon Black in Olefin Plastics.

HDPE conduit and fittings will comply with ASTM D 2241 and ASTM-F2160-01.

The Contractor will provide City Representatives with manufacturer's certification of analysis and compliance showing that HDPE conduit meets these specifications.

Should the Contractor choose to substitute HDPE conduit in place of the installation of direct buried PVC conduit, direct buried HDPE conduit will be paid at the unit bid price of direct buried PVC conduit.

Unless otherwise shown on the Plans; bends, conduit fittings, expansion joints, 36-inch sweeps and other conduit accessories not specifically mentioned will be manufactured from a material similar to the connecting conduit.

Conduit elbows used for fiber optic cable installations (including future installations) will be a minimum of 36-inches and for bends of 90 degrees or greater will be encased in 1-sack slurry or concrete for at least 12" beyond each bend or coupling joint, whichever is greater. All other conduit elbows will be a minimum of 24-inches.

Construction Requirements:

All construction will be performed in accordance with the Project Plans. Where not included in these Technical Specifications or other referenced specifications, the work under this item will be installed per Section 732-3 of the ADOT Standard Specifications.

The Contractor will trench and install the 2.5-inch diameter conduit at the approximate locations indicated on the Project Plans. The conduit will be installed at a depth as shown on the Project Plans from finished grade to the top of conduit. Each conduit will terminate in a pull box. Elbows will be the same size as the conduit with minimum 18-inch radius at the junction box and 24 inches at all other locations.

Interconnect conduit will be comprised of four 2-inch conduits, one conduit black in color and the three other conduits gray in color. All unused conduits will have 2500-pound detectable mule tape installed, with detectable members spliced across junction boxes to form a continuously detectable conduit run. All conduits will enter junction boxes using 45-degree sweeps with no less than a 36-inch radius. (unless otherwise specified).

All conduit will have a continuous 2500 lb pull tape installed within and the ends sealed in a NEC approved manner to keep all moisture and foreign matter out of the conduit. Tying two sections of pull tape together is not allowed and will result in replacement by the contractor. A #12 AWG copper conductor tracer wire will be installed within each conduit or one tracer wire will be installed externally of the conduits, but alongside the conduits within the same bore or trench. Tracer wire must be electrically continuous. Any direct buried copper splice of the tracer wire must meet NEC requirements for direct buried electrical splices.

Measurement:

Electrical Conduit and Interconnect Conduit will be measured by the linear foot from center to center of pull boxes or from end to end of conduit when no pull boxes are used.

Payment:

The accepted quantities for Electrical Conduit and Interconnect Conduit, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place, including excavation, drilling, slurry, fittings, mule tape, tracer wire, backfill necessary to complete the work.

No additional payment will be made for conduit bends or rigid non-metallic conduit bends at pull boxes, expansion fittings coupling fittings, the cost being considered incidental to this item.

No additional payment will be made for saw cutting, boring, trenching, pavement removal, disposal and pavement replacement done as part of conduit installation, the cost being considered incidental to this item.

ITEM NO. 104 SRP UNDERGROUND CONVERSION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to trench and install conduit, including grading for SRP equipment pads and associated coordination that will be provided by the Contractor for the underground conversion per Project Plans. This work includes the underground relocation of the distribution line for both the underground conversion and underground relocation work.

Construction Requirements:

Work will consist of providing trench (or other means and methods as required) and conduit to construct SRP underground power conduit per the SRP plans. Work will need to be closely coordinated with SRP work. SRP will pull conductor through Contractor supplied and installed conduit and pull boxes. SRP will also be installing pad-mounted equipment. Contractor will provide graded areas at the equipment pad locations as shown on the plans.

This work will include trenching, jacking, drilling, excavating, grading for SRP concrete pads, placing and compacting backfill material in accordance with the locations shown on the Project Plans, including SRP plans, the requirements of these specifications, and SRP

requirements and details as shown on the SRP plans.

Materials:

Electrical Conduit and conduit fittings will be listed by UL, conform to NEC standards, and adhere to SRP requirements and standards.

Excavating and compacting backfill material will be in accordance with SRP Standards.

SRP Pull Boxes will be listed by UL, conform to NEC standards, and adhere to SRP requirements and standards.

Measurement:

SRP Underground Conversion furnished and installed will be measured by linear foot of trench. All labor and materials for installing a complete conduit system, including, but not limited to conduit, pull boxes, excavating, compacted backfill material, trenchless installation methods, coordination with SRP, grading for SRP concrete pads, and restoration of effected area to original condition will be included as part of the unit of measurement.

Payment:

SRP Underground Conversion, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work described herein, including all incidentals necessary to complete the work, delivery, storage and handling of the materials.

No additional payment will be made for various types of means and methods as may be required for installation, such as horizontal directional drilling, in order to protect existing improvements, the cost being considered incidental to this item.

- ITEM NO. 105 POLE FOUNDATION, TYPE A**
- ITEM NO. 106 POLE FOUNDATION, TYPE RC**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal pole foundations at the locations and elevations as specified in the Project Plans.

Materials:

The work under these items will conform to the City of Chandler (COC) Standard Details C-710, C-713, C-714, and C-718, the current editions of the ADOT "Traffic Signals & Lighting" Standard Drawings T-SL 4.01, T-SL4.27, and T-SL4.28, Subsection 731 of the

ADOT Standard Specifications and City of Chandler's Approved Product List.

Construction Requirements:

The work under these items will conform to the COC Standard Detail C-710, C-713, C-714, and C-718, the current editions of the ADOT Standard Drawings T-SL 4.01, T-SL 4.27, and T-SL 4.28, and Subsection 731 of the ADOT Standard Specifications.

Contractor shall refer to the ADOT Standard Drawing T-SL 4.28 for further information regarding, anchor bolt details, the bold projection above foundation and the spacing between the top of foundation and the bottom of the pole base plate. The top of pole foundation shall match the elevation as specified in the project plans.

Measurement:

The pole foundations will be measured as a unit for each foundation furnished and installed, including excavation and backfill.

Payment:

The accepted quantities of pole foundations, measured as provided above, will be paid for at the contract unit price each, for the type of foundation designated in the bidding schedule, which price will be full compensation for the work, complete in place.

No additional payment will be made for all hardware, anchor bolts, wire, excavation, backfill and incidentals, the cost being considered incidental to this item.

ITEM NO. 107 VIDEO DETECTION SYSTEM (CAMERA)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing a 4-camera video detection system at the intersections as specified in the Project Plans.

Materials:

The video detection equipment will be FLIR – TrafiSense Dual 2 (645) (one per approach).

Video detection equipment will include the following items:

- TI BPL2 Edge BIU&SIU Interfaces (Two per Traffic Signal Cabinet)
- SDR-240-48 Mean Well Power Supply, and Cables (One Power Supply per Four Sensors Max)
- One (1) 10" Steel Din Rail and Two Unistrut Clips with Screws (per Power Supply)

- Phoenix Contact Ground Terminal Block MFR #3044092 (One per Camera)
- Phoenix Contact White Terminal Block MFR #3045075 (One per Camera)
- Phoenix Contact Black Terminal Block MFR #3045088 (One per Camera)
- Altech Corp Fuse Block MFR #CF4U (One per Power Supply)
- Little Fuse SLOW BLOW 3.15A 5X20MM Glass Cartridge 250VAC MFR 02183.15HXP (One per Fuse Block)
- Pelco Astro-Brac Product #AG-0169-74-96-PNC (One per approach and to mount on the signal arm)
- BELDEN 1036A 18-1T STR BC PVC O/A FOIL SHD PVC JKT 105C 300V BLK/WHT/RED UL PLTC OR ITC

Placement of detection zones will be by means of a notebook computer (PC) operating the software suite provided under this item. The VGA mode monitor, integral to the notebook computer (computer screen), will be able to show the detection zones superimposed on images of traffic scenes.

The video detection system will optimally detect vehicle passage and presence when the MVP sensor is mounted 30 feet, or higher, above the roadway when the image sensor is adjacent to the desired coverage area, and when the distance to the farthest detection zone locations are not greater than 10 times the mounting height of the camera.

Warranty, Support and Service:

The Contractor shall provide a minimum of one-year warranty for the video detection cameras. Ongoing software support by the Contractor shall include software updates of the camera sensor, modular cabinet interface unit and computer applications. These updates will be provided free of charge during the one-year warranty period. The Contractor shall maintain a program for technical support and software updates following expiration of the warranty period. **Construction Requirements:**

A member of the City of Chandler Traffic Signal Group or their representative will supervise the installation and testing of the video detection system.

The video detection camera shall be installed and optimized by an authorized FLIR representative per manufacturer's specifications using the PELCO Astra-Brac camera mount between outside signal heads on the level part of signal arm for optimal detection. The Contractor shall install a drip loop at each camera mount. The final mounting location shall be approved by City of Chandler Traffic Engineering.

The video detection cable will be installed from the new video detection camera and be terminated on the existing traffic signal cabinet. Work within the existing traffic signal cabinet will be done by City staff.

The City TMC will inspect and approve the installation of the camera prior to acceptance.

Measurement:

The Video Detection System (Camera) will be measured per each video detection system furnished and installed including sensors, cabling, mounting brackets, and interface panels.

Payment:

The accepted quantity of Video Detection System (Camera), measured as provided above, will be paid for each video detection system, which will be full compensation for the item complete in place, including sensors, cabling, mounting brackets, and interface panels as specified in the Project Plans and described herein.

- ITEM NO. 108 TYPE A SIGNAL POLE**
- ITEM NO. 109 TYPE RC SIGNAL POLE**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal poles at the locations as specified in the Project Plans.

Materials:

The work under these items will conform to the City of Chandler Standard Detail C-710, C-713, C-714 and C-717, and the current editions of the ADOT "Traffic Signals & Lighting" Standard Drawing T-SL 4.27, and Subsection 731-2.02 of the ADOT Standard Specifications for Road and Bridge Construction.

Construction Requirements:

The work under these items will conform to the City of Chandler Standard Detail C-710 and C-714 and Subsection 731-2.02 of the ADOT Standard Specifications for Road and Bridge Construction.

Measurement:

The traffic signal poles will be measured as a unit for each type of pole furnished and installed.

Payment:

The accepted quantities of traffic signal poles, measured as provided above, will be paid for at the contract unit price each, for the type of pole designated in the bidding schedule,

which price will be full compensation for the work complete in place as described and specified herein and on the Project Plans, including all hardware, wire, and incidentals necessary to complete the work.

ITEM NO. 110 AUDIBLE PEDESTRIAN PUSH BUTTON WITH SIGN

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing audible pedestrian push buttons with signs at the locations as specified in the Project Plans.

Materials:

The work under this item will conform to the current editions of the ADOT “Traffic Signals & Lighting” Standard Drawings and the City of Chandler Approved Product’s List.

Construction Requirements:

The work under this item will conform to Section 735-2.02 of the ADOT Standard Specifications.

Measurement:

The Audible Pedestrian Push Button will be measured as a unit for each audible pedestrian push button furnished and installed.

Payment:

The Audible Pedestrian Push Button, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work complete in place, as specified herein and on the Project Plans.

- ITEM NO. 111 20 FT MAST ARM (TAPERED)**
- ITEM NO. 112 45 FT MAST ARM (TAPERED)**
- ITEM NO. 113 55 FT MAST ARM (TAPERED)**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal mast arms at the locations as specified in the Project Plans.

Materials:

The work under these items will conform to the City of Chandler Standard Detail C-710, C-713, C-714 and C-717, and the current editions of the ADOT "Traffic Signals & Lighting" Standard Drawings, and Subsection 731-2.02 of the ADOT Standard Specifications for Road and Bridge Construction.

Construction Requirements:

The work under these items will conform to the City of Chandler Standard Detail C-710 and C-714 and Subsection 731-2.02 of the ADOT Standard Specifications for Road and Bridge Construction.

Measurement:

The traffic signal mast arms will be measured as a unit for each type of mast arm furnished and installed.

Payment:

The accepted quantities of traffic signal mast arms, measured as provided above, will be paid for at the contract unit price each, for the type of mast arm designated in the bidding schedule, which price will be full compensation for the work complete in place and as specified herein and on the Project Plans, including all hardware, wire, and incidentals necessary to complete the work.

- ITEM NO. 114 CONTROL CABINET**
- ITEM NO. 115 CONTROL CABINET FOUNDATION**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal control cabinet, controller, and foundation at the location as specified in the Project Plans.

Materials:

(A) Control Cabinet:

The control cabinet will be a Mobotrex TS2 Type 1 cabinet per COC Approved Products List and will conform to the current editions of the ADOT Traffic Signals & Lighting Standard Drawings and ADOT Standard Specifications Section 734.

(B) Controller:

The traffic signal controller will be a McCain ATC EX2 NEMA Controller, or

approved equivalent, and will conform to the current editions of the ADOT "Traffic Signals & Lighting" Standard Drawings and Section 734 of the ADOT Standard Specifications.

(C) Control Cabinet Foundation:

The control cabinet foundation will be 4,000 psi Class S concrete and will conform to the current editions of the ADOT "Traffic Signals & Lighting" Standard Drawings and Section 734 of the ADOT Standard Specifications.

Construction Requirements:

The work under these items will conform to the City of Chandler's Standard Detail C-723 and Section 734-3 of the ADOT Standard Specifications for Road and Bridge Construction.

Measurement:

The traffic signal cabinets and foundations will be measured as a unit for each cabinet or foundation furnished and installed.

Payment:

The accepted quantities of traffic signal control cabinets and foundations, measured as provided above, will be paid for at the contract unit price each, for the type of mounting assembly designated in the bidding schedule, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans, including service terminal boxes, cabinet mounted service enclosures, meter sockets, breaker panels, foundations, conduit, elbows, anchor bolts, clearance pad, auxiliary signal controls, external logic modules and all other components necessary to provide a complete functional assembly for controlling the operation and timing of traffic control signals.

ITEM NO. 116 OPTICOM PRE-EMPTION UNIT

Description:

The work under this item will consist of furnishing all labor, materials, and equipment to install emergency vehicle sensors and phase selector cards as specified in the Project Plans.

Materials:

The pre-emption equipment will be Opticom Model No. 721. The pre-emption equipment will include the following equipment:

- Opticom 721 (One per Approach)

- 762 Phase Selector (Two per Traffic Signal Cabinet)
- Opticom 138 Detector Cable

Construction Requirements:

The emergency vehicle pre-emption system sensors will be mounted on the specified poles and for specified directions as indicated on the Project Plans. Sensors will be attached to the mast arm of the specified poles in a rigid and waterproof manner, with cables routed inside the mast arm and pole shaft.

Sensors will be aimed by the Contractor for maximum distance sensing.

The Contractor is responsible for installing all components, making all connections and adjusting sensors for the emergency pre-emption system.

Phase selectors will be placed in the appropriate input file slots in the traffic signal controller cabinet by the Contractor.

Preemption cables will run unspliced from the sensors to the existing controller cabinet and will be furnished and installed and terminated in the cabinet by the Contractor, under this item.

Preemption cables will be clearly tagged and marked in the controller cabinet and each pull box they pass through, designating the direction, phase or corner served. The Contractor is responsible for ensuring the emergency pre-emption system is properly aimed and ready for activation prior to the date of turn-on. The Contractor will make any adjustments to sensor aiming or cabling, as requested by City Representatives.

The pre-emption system will be tested by the Contractor to insure proper operation.

Measurement:

Opticom Pre-emption Unit will be measured as a unit for each pre-emption unit installed and tested complete in place.

Payment:

Opticom Pre-emption Unit, measured as above, will be paid for at the contract unit price per each, which will be in full compensation for the work, complete in place, including pre-emption sensors and testing as specified herein and specified in Project Plans.

- ITEM NO. 117 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)**
- ITEM NO. 118 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)**
- ITEM NO. 119 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)**
- ITEM NO. 120 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal mounting assemblies at the locations as specified in the Project Plans.

Materials:

The work under these items shall conform to the current editions of the ADOT "Traffic Signals & Lighting" Standard Drawings and Section 733 of the ADOT Standard Specifications.

Construction Requirements:

The work under these items shall conform to Section 733-3 of the ADOT Standard Specifications.

Measurement:

The traffic signal mounting assemblies will be measured as a unit for each type of mounting assembly furnished and installed.

Payment:

The accepted quantities of traffic signal mounting assemblies, measured as provided above, will be paid for at the contract unit price each, for the type of mounting assembly designated in the bidding schedule, which price shall be full compensation for the work, complete in place, as specified herein and on the Project Plans, including visors, backplates, and incidentals necessary to complete the work.

ITEM NO. 121 SIGN ASSEMBLY (IISNS)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for developing shop drawings and mounting details and installing the Internally Illuminated Street Name Signs (IISNS) as specified in the Project Plans.

Materials:

The work under this item will conform to the City Details C-606 and C-607.

Construction Requirements:

The work under this item will conform to City Details C-606, C-607, and C-608.

IISNS cabling will run unspliced from the traffic signal control cabinet to the IISNS.

Measurement and Payment:

Sign Assembly (IISNS) will be measured as a unit for each IISNS and will be paid for at the contract unit price each, for the IISNS designated in the bidding schedule, which price will be full compensation for the work, complete in place described and specified herein and on the Project Plans, including IISNS cabling, mounting brackets, and incidentals necessary to complete the work.

- ITEM NO. 122 TRAFFIC SIGNAL (FLASHING YELLOW ARROW FACE) (LED)**
- ITEM NO. 123 TRAFFIC SIGNAL FACE (TYPE F) (LED)**
- ITEM NO. 124 TRAFFIC SIGNAL FACE (PEDESTRIAN) (MAN/HAND) (LED)**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal indications and pedestrian signal indications at the locations as specified in the Project Plans.

Materials:

The work under these items will conform to the current editions of the ADOT Traffic Signals & Lighting Standard Drawings and ADOT Standard Specifications Section 733.

All traffic signal indications will be Light Emitting Diode (LED) modules.

Vehicle type LED modules will fit in all standard, incandescent vehicle traffic signal housings. Each module will be complete, consisting of:

- A lens
- LED circuit board inclusive of all of the LEDs and required circuit components
- 36 inch 16 AWG wire leads with strain relief and quick connect terminals
- A rigid housing for protection in shipping, handling and installation
- A one-piece neoprene gasket.

Pedestrian Signal Module:

The pedestrian LED traffic signal module will fit the message of a 16 inch by 18 inch

pedestrian signal housing built to the PTCSI Standard. The “HAND” and “MAN” symbol will be 12 inches in height, and conform to PTCSI Standards.

Pedestrian LED signal modules will be designed so, that when operated over the specified ambient temperature and voltage range, the signal will attract the attention of, and be readable to, a viewer (both night and day) at all distances from 9.8 feet to 196.9 feet (3 meters to 60 meters). The measured chromaticity coordinates of the LED pedestrian signal module will conform to the chromaticity requirements of Section 5.3 and Figure C of the PTCSI standard.

The LED pedestrian signal module will be man/hand overlay with fill-in figures for both the man and the hand. Outline and/or side-by-side modules will not be used.

The LED pedestrian signal module will conform to all other specifications in this document, where applicable.

The LED signal module will be rated for use in the ambient operating temperature range, measured at the exposed rear of the module, of -40°F to +165°F (-40°C to +74°C).

The LED signal module will be protected against dust and moisture intrusion per the requirements of NEMA Standard 250-1991, Section 4.7.2.1 and 4.7.3.2, for Type 4 enclosures to protect all internal LED, electronic, and electronic components.

The LED signal module lens will be UV stabilized and scratch resistant.

The external lens surface for all vehicle signals will be smooth, with no raised features, so as to minimize the collection of dirt, diesel smoke, and other particulate contaminants, and to facilitate periodic cleaning. External lens facets are not allowed. The LED signal module lens will be UV stabilized and scratch resistant.

The LEDs will be mounted and soldered to a printed circuit board. The LED signal module will be watertight when properly mounted in an installed traffic signal housing. The LED signal module will utilize the same mounting hardware used to secure the incandescent lens and gasket assembly and only require a screwdriver or standard installation tool to complete the mounting into an existing traffic signal housing built to the VTCSH Standard. Unit will connect to existing electrical wiring utilizing quick connect terminal.

The LED signal module will be a single, self-contained device, not requiring on-site assembly for installation into an existing traffic signal housing. The power supply for the LED signal module will be an integral part of the module. The LED signal module assembly will weigh less than 5 pounds.

The assembly and manufacturing process for the LED signal module will be designed to assure all internal LED and electronic components are adequately supported to withstand mechanical shock and vibration from high winds and other sources.

When necessary, modules will have a prominent and permanent vertical indexing indicator, i.e., UP ARROW or the word UP or TOP, for correct indexing and orientation inside signal housing.

Each individual LED signal module will be identified for Warranty purposes and clearly marked with:

- Manufacturer's name
- Date of manufacture.
- Unit serial number.
- Nominal operating voltage
- Power consumption in Watts

Environmental:

The LED signal module will operate over the temperature range of -40°F to +165°F (-40°C to +74°C). The LED signal module will be protected against dust and moisture intrusion per the requirements of NEMA Standard 250-1991, Section 4.7.2.1 and 4.7.3.2, for Type 4 enclosures to protect all internal LED, electronic, and electronic components.

Electrical – Input:

LED signal modules will operate from a 60 +/- 3 cycle AC line power over a voltage range from 80 VAC RMS to 135 VAC RMS. The control circuitry will prevent current flow through the LEDs in the off state to avoid any false indication as may be perceived by the human eye. The LED traffic signal module will be operationally compatible with NEMA TS - 1 and NEMA TS - 2 *conflict monitoring* parameters.

Green LED signals will not illuminate for input voltages below 35 VAC RMS and will illuminate for all input voltages higher than 45 VAC RMS (voltage will be regulated above 80 VAC RMS). This requirement is so that a green indication will not illuminate due to a "floating" or high-impedance neutral connection.

All wiring and terminal blocks will meet the requirements of Section 13.02 of the VTCSH standard. Two secured, color coded, 36 inch (914 mm) long 600 V, 20 AWG minimum, jacketed wires, conforming to the National Electrical Code, rated for service at +221°F (+105°C), are to be provided for electrical connection.

The signal module on-board circuitry will include voltage surge protection to withstand high-repetition noise transients and low-repetition high-energy transients as stated in Section 2.1.6, NEMA Standard TS-2, 1992.

The individual LED light sources will be wired so that a catastrophic failure of one LED light source will result in the loss of not more than 5 percent of the signal module light output. One LED failure in an LED Signal Module will not affect any other LEDs. In case of a failure of one LED, only one LED will be lost and not an entire string or module.

Power factor will be 90% or greater, at nominal rated voltage, at 77°F (25°C), after 60 minutes of operation.

Total harmonic distortion induced into an AC power line by an LED signal module, operated at nominal operating voltage, with a power consumption equal to or greater than

15 watts at 77°F (25°C) will not exceed 20 percent. Total harmonic distortion induced into an AC power line by an LED signal module, operated at nominal operating voltage, with a power consumption less than 15 watts at 77°F (25°C) will not exceed 40 percent.

The LED signal and associated on-board circuitry must meet Federal Communications Commission (FCC) Title 47, subpart B, Section 15 regulations concerning the emission of electronic noise.

Optical – Output:

The light intensity and distribution from LED signal modules will as a minimum, meet the current ITE and CAL TRANS standards and measurement criteria for vehicle traffic control, even after a 30 minute warm up of continuous operation.

Test data to verify the performance as meeting the ITE intensity requirements at +165°F (+74°C) will be supplied from either of the following (or another certified independent test lab):

Lighting Sciences
7630 East Evans Road
Scottsdale, AZ 85260

ETL Testing Laboratories
3933 US Route 11
Cortland, NY 13045-0950

The light output of all LED vehicle signal modules will also meet *ITE* specifications for chromaticity.

Fluctuations in line voltage over the range of 80 VAC to 135 VAC will not affect luminous intensity by more than +/- 10 percent.

LED traffic signals will be temperature compensated so as to maintain intensity at elevated temperatures. LED traffic signal will be tested and documented by CAL TRANS as being in compliance with CAL TRANS intensity standards at elevated temperatures.

The LEDs will not exhibit degradation of more than 30% of their initial light intensity following accelerated life testing (operating at +185°F (+85°C) and 85% humidity, for 1000 hours). AlGaAs technology is not acceptable.

Warranty:

All LED traffic signal modules supplied will be warranted for five years against manufacturing defects.

LED traffic signal modules will be performance warranted to be in compliance with ITE and CAL TRANS minimum intensity standards, at +165°F (+74°C), after a period of three years, measured at 117 volts AC.

Failures due to acts of God, abuse, and accidents are excluded from warranty coverage.

The manufacturer expressly warrants that all goods furnished will conform to all specifications and appropriate standards, will be new, and will be free from defects in material or workmanship. The manufacturer warrants that all such goods will conform to any statements made on the containers or labels or advertisements for such goods and that any goods will be adequately contained, packaged, marked and labeled. The manufacturer warrants that all goods furnished will be merchantable, and will be safe and appropriate for the purpose for which goods of that kind are normally used. If the manufacturer knows or has reason to know the particular purpose for which the City intends to use the goods, the manufacturer warrants that such goods will be fit for such particular purpose. The manufacturer's warranty will run to the City, its successors, and assigns. The manufacturer agrees to replace or correct defects of any goods not conforming to the foregoing warranty promptly, without expense to the City, when notified of such nonconformity by the City, provided the City elects to provide the manufacturer with the opportunity to do so. In the event of failure of the manufacturer to correct defects in or replace nonconforming goods promptly, City, after reasonable notice to the manufacturer, may make such corrections or replace such goods and charge the manufacturer for the cost incurred by the City in doing so.

Construction Requirements:

The work under these items will conform to ADOT Standard Specifications Section 733.3.

Measurement:

The traffic signal indications and pedestrian signal indications will be measured as a unit for each type of signal face furnished and installed.

Payment:

The accepted quantities of traffic signal indications and pedestrian indications, measured as provided above, will be paid for at the contract unit price each, for the type of signal face designated in the bidding schedule, complete in place, which price will be full compensation for the work as specified herein and on the Project Plans, including visors, backplates, lamps and incidentals necessary to complete the work.

- ITEM NO. 125 STREET LIGHT POLE FOUNDATION, FOR SL-1 POLE**
- ITEM NO. 126 STREET LIGHT POLE, SL-1 WITH SINGLE DAVIT ARM**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install the streetlight pole, including signal davit arm, pole foundation, and appurtenances at the locations as specified in the Project Plans.

Materials:

The streetlight pole, foundation and single davit arm will conform to the current edition of the City Details C-751-1, C-751-2, and C-751-3 (Streetlight Detail SL-1).

Construction Requirements:

The pole will be installed plumb and straight. The base of the pole will be oriented so that the hand hole is located away from the sidewalk and street.

The Contractor will furnish and install the (2) #12 AWG conductors and (1) #8 AWG Ground wire from the luminaire to the junction box. The Contractor will install fuse holders and fuses for all current carrying conductors within the handhole of pole.

The streetlight pole foundation will be installed as directed in the current edition of the City Streetlight Detail SL-1.

Measurement:

Pole Foundation, for SL-1 Pole will be measured as a unit for each foundation installed.

Payment:

The accepted quantities of Pole Foundation and SL-1 Pole, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place.

No additional payment will be made for conductors to be installed from the junction box to the luminaire or fuses/fuse holders, the cost being considered incidental to this item.

- ITEM NO. 127 LED STREETLIGHT LUMINAIRE, TYPE II**
- ITEM NO. 128 LED LUMINAIRE (TRAFFIC SIGNAL)**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for furnishing and installing luminaires at locations as specified in the Project Plans.

Materials:

LED Luminaires will be in accordance with Streetlight Technical Design Manual Section 2.2, LED Luminaires. The luminaire model will be as indicated on the Project Plans. House side shields will be installed on the luminaires where indicated on the Project

Plans.

Construction Requirements:

Installation and type of luminaire will meet SRP and City of Chandler standards. LED Streetlight Luminaires will be compatible with and meet mounting requirements per ADOT "Traffic Signals and Lighting" Standard Drawings and Section 731-2.02 of the ADOT Standard Specifications.

The existing LED luminaires, and any associated equipment, will be removed and relocated to a new traffic signal pole light mast arm as specified in the Plans.

Prior to removing the assembly, the Contractor will disconnect the luminaire power conductors. The contractor will install new cabling as required to provide a fully functional relocated LED luminaire.

(A) Initial Documentation

Prior to removing each LED luminaire assembly, the contractor will document the physical condition of each piece of equipment via photography. This documentation will constitute as the baseline for the physical condition of each LED luminaire assembly.

(B) Installation

Prior to installing the existing LED luminaire on the new traffic signal pole light mast arm, the physical condition of each piece of equipment will be inspected and compared to the photographs taken after the luminaire was initially removed from the existing light pole. The Contractor will repair any damaged physical features per the direction of the Engineer at no additional cost to the City.

Measurement:

LED Streetlight Luminaire will be measured as a unit for each installed in accordance with the contract plans and these Technical Specifications.

Payment:

The LED Streetlight Luminaire, measured as provided above, will be paid for at the contract unit price each, which will be full compensation for the work, complete in place, including storing, transporting, disconnecting, and installing the LED Luminaire on a new or existing light mast arm and any associated equipment required in the traffic signal cabinet.

ITEM NO. 129 CONDUCTORS (SIGNALS AND SIGNAL LIGHTING)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install traffic signal and signal lighting conductors in conduits at the locations as specified in the Project Plans.

Materials:

The material under this item will conform to the current editions of the ADOT Traffic Signals & Lighting Standard Drawings and ADOT Standard Specification Section 732-2.01

Construction Requirements:

The work under this item will conform to Section 732-3 of the ADOT Standard Specifications.

Measurement:

Conductors (Signals and Signal Lighting) will be measured as a single complete unit of work. This method of measurement will be used for signal and lighting conductors shown in the signal conductor schedule on the Project Plans.

Payment:

Conductors (Signals and Signal Lighting), measured as provided above, will be paid for at the contract lump sum price, which price will be full compensation for the work, complete in place.

- ITEM NO. 130 FIBER OPTIC CABLE (SINGLE MODE 12)**
- ITEM NO. 131 FIBER OPTIC CABLE (SINGLE MODE 144)**
- ITEM NO. 132 UNDERGROUND FIBER OPTIC SPLICE CLOSURE**

Description:

The Contractor will furnish all labor, material, and equipment necessary to install Single Mode Fiber Optic (SMFO) communication cables in conduit as shown on the Project Plans.

The SMFO Communication subsystem will be completed with the use of two types of SMFO cable installations. These are (1) 144-fiber trunk or branch cables used for the main communication system backbone, and (2) 12-fiber service cable used for connecting the main trunk or branch cables to the field devices, as shown on the Project Plans. The traffic service cables will be factory terminated to a "Gator Patch" patch panel or approved

equal (non-factory terminated poly-mod systems are not an approved equal product), unless otherwise directed by the designated City Representative.

The trunkline cable will have all fibers sealed from moisture and dust particles in a new or existing splice enclosure in No. 9 splice vaults, or as directed by the designated City Representative.

The Contractor will furnish all labor, material, and equipment necessary to install fiber optic splice closures at locations shown in the Project Plans or approved splicing diagrams, and at the cut end of a cable run, or as directed by the designated City Representative. These splice closures will be used to house and protect the splices.

Due to the ever changing nature of the City fiber network, the approved fiber splicing diagrams will be provided by the City only after the fiber conduit infrastructure installation has passed inspection and prior to the fiber optic cable installation. Should a discrepancy exist between the Project Plans and the approved fiber splicing diagrams in regards to splice locations, the fiber splicing diagrams take priority, unless otherwise directed by the designated City Representative.

Materials:

General Requirements:

(A) Documentation:

The Contractor will provide certification that the cables furnished and installed are in conformance with the appropriate specifications. This certification will be in two parts:

- (1) The Contractor will secure a certification from the cable manufacturer that the cable is in conformance with the Rural Electrification Administration (REA) Bulletin 1753F-601 (where applicable) and these Technical Specifications.
- (2) The Contractor will certify that the installation of the communication cable subsystem is in accordance with the cable and splice manufacturer's recommendations and these Technical Specifications.

(B) Warranty:

Each item of the communication cable subsystem will be warranted by the Contractor against all defects in material and workmanship in accordance with Subsection 106.13.

(C) Technical Requirements:

The 144 fiber SMFO will be a continuous cable of sufficient length to permit the associated runs shown on the Project Plans to be made without full cable splices between specified splice locations. Full cable splices will be submitted to City Representatives for approval. The cable will be wound on the reel in such a manner

as to provide access to both ends of the cable to enable testing to be performed while the cable is on the reel. Fiber optic cable cuts, splices or cable sheath cuts must only be created as indicated on splicing diagrams, unless otherwise directed by the designated City Representative. If the Contractor violates these cut requirements, the entire length of cable from the previous splice point will be removed from the project and a new cable will be pulled at no additional cost to the project. The City will provide the approved fiber cable diagrams for those splice locations along with the approved splicing diagrams for those locations.

Where cable is pulled through an intermediate pull box, the Contractor will ensure that the cable is protected from sharp edges and excessive bends. The Contractor will not cause the cable to violate the minimum bending radius for which the cable was designed. If the Contractor violates the bending radius, the entire length of cable from the previous splice point will be removed from the project and a new cable will be pulled at no additional cost to the project.

Cables will be pulled in the conduit with a split mesh cable grip designed to provide a firm hold on the exterior covering of the cable. Cable will not drag on the ground or pavement during installation. The Contractor will ensure that the tensile load on the cable does not exceed the allowed maximum by using a system that includes a means of alerting the installer when the pulling tension approaches the limit and displays the actual tension on the cable. The Contractor may supplement this procedure with a breakaway tension limiter set below the recommended tensile limit of the cable being pulled.

During pulling, the cable will be lubricated at each pull box. The Contractor will use a prelubrication or continuous lubrication method. The lubricant used will be compatible with the cable jacket as recommended by the cable manufacturer. Liquid detergent will not be used. The Contractor will supply documentation identifying either the manufacturer recommendation or a published standard recommending the maximum pulling tension and speeds and these values will not be exceeded. The Contractor will have this documentation on site during each pull. If the Contractor fails to continuously lubricate the cable, the work will be stopped until the terms of this specification are being met to the satisfaction of City Representatives. No compensation for the work stoppage will be given.

Where cables are to be installed in conduit with existing cables or wires that will remain, the Contractor will not damage the existing cables or wires. The Contractor will disconnect, remove, reinstall, and reconnect the existing cables and wires as necessary to facilitate the installation of the new cable, only after prior authorization of the designated City Representative, as critical data is often transmitted over these cables. Prior notification of a minimum of two weeks in advance will be necessary. The Contractor will be responsible for any damage to the existing cables or wires caused by this operation. New and existing conductors will be terminated and labeling reconciled. No additional payment will be made as this work will be considered incidental to the associated items. A police officer will be required if the traffic signal is turned off to pull wire.

Cable will not be installed in any conduit until the associated pull boxes are installed prior to cable installation.

(D) Technical Specifications:

The SMFO cable furnished and installed by the Contractor will be designed for underground, in-conduit, and building installation applications and will meet the following requirements:

Fibers per cable: 144 for main trunkline or branch cables
48 for building entrance cables
12 for traffic signal service cables
Cladding diameter: 125.0 microns
Core diameter: 8.3 microns nominal
Core eccentricity: < 1.0 micron (0.3 typical)
Temperature range: -34°C to +74°C.
Coating thickness: 50 ±15 microns
Cable construction: Loose tube
Outer jacket: Polyethylene
Bending radius: 20 x Dia. minimum
Tensile strength: 600 pounds
Strength member: Dielectric
Mode field diameter: 9.3 ±0.5 microns
Zero dispersion wavelength: 1300 to 1320 nm
Zero dispersion slope: < 0.092 picosec/nm²-km
Cutoff wavelength: 1260 nm
Point discontinuities at 1300 nm: < 0.1 dB

The 12-fiber service cable will be installed with the “Gator Patch” patch on the floor of the traffic signal controller cabinet. Jumper cables utilizing ST connectors will be installed from the “Gator Patch” to the required equipment. The cost of the jumper cables will be incidental to the service cable. The Contractor is required to seal the unused connectors and fibers from moisture and dust particles. The “Gator Patch” patch will not be pulled through conduit at any time.

Attenuation will be less than 0.35 dB per km at 1300 nm. The Contractor will not exceed the fiber optic cable manufacturer's guidelines for receiving signal input level. The Contractor will be responsible for all damages caused by an excessive input signal level. A violation of the power limit may damage equipment.

(E) Installation Procedure:

Fiber optic cable installation will be allowed to begin only after the fiber conduit infrastructure installation has passed inspection and the approved fiber splicing diagrams have been provided to the Contractor by the designated City Representative.

Each City of Chandler No. 9 pull box will have 100 feet of slack cable and 50 feet

of slack cable in a No. 7E pull box loosely looped.

All fiber optic cable will be pulled in innerduct except as specified on the Project Plans. Care will be exercised during cable pulls through conduit bends, poles and cabinets, and looping in junction boxes. In the event the minimum fiber optic radius cannot be maintained during the installation, the Contractor will submit alternative resolutions to City Representatives for review.

To reduce the possibility of damage to the outer jacket of the fiber optic cable, protective measures will be used when the cable is installed. The requirements, herein, will be followed but do not limit the installation to only those identified. The purpose of the installation specifications is to ensure protection of the fiber optic cable when it is installed. Other protective measures, not specified herein, may be taken during installation if it will ensure protection of the cable.

Repair of cable jacket will not be permitted. Jacket damage will require a new cable run.

A cable feeder guide will be used between the cable reel and the face of the duct and conduit to protect the cable and guide it off the reel and into the duct. The cable will be carefully inspected for jacket defects as it is removed from the reel. If defects are noticed, the pulling operation will be stopped immediately and City Representatives notified.

Precautions will be taken during installation to prevent the cable from being kinked or crushed.

A pulling eye will be attached to the cable end and be used to pull the cable through the duct and conduit system.

As the cable is pulled off the reel and into the cable feeder guide, it will be sufficiently lubricated with a lubricant that will be of the water-based type and approved by the cable manufacturer.

Dynamometers or break away pulling swings will be used to ensure the pulling-line tension does not exceed the installation tension values specified by the cable manufacturer. The mechanical stress placed upon the cable during installation will not be such that the cable is twisted and stretched.

The pulling of the cable will be hand-assisted at each pull box or splice vault. The cable will not be crushed, kinked or forced around sharp corners.

At each pull box and at each cabinet the cable will be visibly marked as follows:

“CAUTION - FIBER OPTIC CABLE”

The markings will be affixed with nylon ties and will be a warning label that will never fade or rub off.

The length of cable being pulled will not exceed the maximum cable tension as

specified by the cable manufacturer.

The supplier of the fiber optic cable will provide assistance and/or supervision in the installation process unless the installing company meets the requirements of the supplier.

Where applicable each cable should be labeled and attached to the cable racks with Ty-Raps immediately upon entering the box. Cables should be looped independently of one another. Ty-Raps will contain the cable loops of one cable. Ty-Raps should be tightened so that they prevent cable slippage but do not deform or damage the cable sheath. Ty-Raps will be used as necessary to neatly and independently rack the cables.

Splicing of the SMFO cable will be done only at splice vaults as shown on the Project Plans or approved fiber splicing diagrams by fusion splicing technique. Should a discrepancy exist between the Project Plans and the approved fiber splicing diagrams in regards to splice locations, the approved fiber splicing diagrams take priority, unless otherwise directed by the designated City Representative. The City will provide fiber cable diagrams for those splice locations along with the approved splicing diagrams for those locations. All splices and connectors will be prepared in accordance with the cable manufacturer's, splice manufacturer's, or connector manufacturer's recommendations. Splices will introduce less than 0.2 dB attenuation and connectors will introduce less than 0.5 dB attenuation. Contractor will submit to City Representatives, all full cable splice locations for approval.

Cable Marking:

The completed (trunk, branch and service) cables will have sequential length markers in a contrasting color to the cable jacket, at regular intervals of three (3') feet, (in English units) along the outside of the jacket. Printed on the jacket will be the cable code to identify the number and type of fibers, the manufacturer's name, manufacture's part number, the year of manufacture and the sequential length markings. The marking will be readable and proportionate in height to the cable and must be permanent and weatherproof.

Colors:

The color of the outer jacket will be black, and the cable must be outdoor rated. The single mode trunk cable "buffer tube" outer jackets and fiber jackets will be colored in accordance with EIA-598 and designated as shown on the table below.

Subcable (Buffer Tube) Jacket Cover Assignments for Trunk Cables:

Fiber Buffer Tube System Corridor Application

Blue	As directed by designated City Representative
Orange	As directed by designated City Representative
Green	As directed by designated City Representative
Brown	As directed by designated City Representative
Slate	As directed by designated City Representative
White	As directed by designated City Representative
Red	As directed by designated City Representative
Black	As directed by designated City Representative
Yellow	As directed by designated City Representative
Violet	As directed by designated City Representative
Rose	As directed by designated City Representative
Aqua	As directed by designated City Representative

Typical Fiber Color Assignments:

Fiber	Fiber color	System Application	Mode	Fiber
1	Blue	Traffic Signal Data	SM	9/125um
2	Orange	Traffic Signal Data	SM	9/125um
3	Green	Future T.S., CCTV, VMS	SM	9/125um
4	Brown	Future T.S., CCTV, VMS	SM	9/125um
5	Slate	Future T.S., CCTV, VMS	SM	9/125um
6	White	Future T.S., CCTV, VMS	SM	9/125um

Each fiber optic cable will be coiled at a minimum radius of 20 times the outer diameter of the fiber cable in pull boxes. For example, if the cable has a diameter of .5 inches, the minimum radius will be no less than 10 inches. At no time will any fiber optic cable be direct buried throughout the project limits.

(F) Splice Closure:

Fiber optic splice closures will be either shell design or cylindrical, butt-end style corrosion resistant, watertight, and meet the requirements of GR-771-CORE. Underground splice closures will seal, bond, anchor, and provide efficient routing, storage, organization, and protection for fiber optic cable and splices. The splice closure will provide an internal configuration and end cap with a minimum of two express ports for entry and exit of backbone cable and a minimum of three additional ports for additional fiber cables.

Splice closures will be designed to accommodate heat-shrink fusion splice trays in sufficient quantities to perform the required number of splices. At a minimum, the splice closure will accommodate 144 splices. Each splice closure will be supplied with at least one spare heat shrink fusion splice tray and the hardware to terminate

at least one additional 12-fiber service cable.

Splice closures will have a reliable dual seal design with both the cable jackets and core tubes sealed, without the use of water-blocking material. The splice closures will be capable of being opened and completely resealed without loss of performance. Splice closures will be of a type that allows for existing fiber cables to be removed without having to cut the fibers to allow for future replacement of the splice enclosure without a loss of service.

The splice closure minimum dimensions will be at least 29 inches long by 11 inches wide, unless otherwise directed by the designated City Representative.

Construction Requirements:

General Requirements:

Installation and testing of all equipment will be accomplished by the Contractor in conformance with these technical specifications.

Test Requirements for Fiber Optic Cable:

The SMFO cable will be tested after installation to verify the integrity of the fiber optic cable plant and its performance. The Contractor will test all terminated fibers of each SMFO cable using an Optical Time Domain Reflectometer (OTDR) in accordance with EIA/TIA-455. Splices testing -0.1 dB or greater or connectors testing -0.5 dB or greater will be remade. If any fibers are out of specification, the entire SMFO cable run will be replaced at no additional cost. Records of all fiber installation attenuation measurements will be logged and supplied to the City prior to final acceptance. These records will be used as a future reference.

Splicing:

At the locations shown in the Project Plans or in the fiber splicing diagrams, the Contractor will perform all required fusion splicing. Should a discrepancy exist between the Project Plans and the fiber splicing diagrams in regards to splice locations, the approved fiber splicing diagrams take priority, unless otherwise directed by the designated City Representative. The Contractor will install the splice closure in a manner proposed to and approved by the designated City Representative, such that the trunk cable entries are on the same side of the end cap so if additional fiber optic cables are installed at a later date, the two existing seals remain undisturbed.

All splices will be prepared in accordance with the manufacturer's recommendations. Each splice between two new fibers will introduce less than 0.1 dB attenuation. For splices between one new and one existing, or reconnection of two existing fibers, the maximum allowable attenuation will be 0.3 dB.

Measurement:

The communication cable will be measured by the linear foot for each size cable furnished and installed; it will be measured horizontally along the route between center of pull boxes and center of pull box to center of cabinet.

No payment will be made for cable that is below ground in vertical conduit stub-ups or for slack cable in pull boxes, or field equipment cabinets. No measurement will be made for splicing and terminating cables, testing, tracer wire, pull tape, or for lubricant. All materials required to complete the system will be incidental to the cable.

No measurement or payment will be made for removal or installation of existing cable as required by the Project plans, specification, or direction by City Representatives.

Fiber optic splice closures will be measured as a unit for each splice closure unit furnished, and installed, complete in place, including the fusion splicing of the fibers in new splice closures.

Payment:

The communication cables will be paid as measured per linear foot. Contract unit price will be full compensation for the cable described and specified herein and on the Plans, complete in place and tested. Use of equipment required to remove or install cable, including equipment to limit pull-tension and speed, and racks and hooks for pre-existing pull boxes will be incidental to these items and will not be measured or paid. This installation equipment will remain the property of the Contractor.

The accepted quantities of fiber optic splice closures, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place and as specified herein and on plans.

ITEM NO. 133 FIBER OPTIC PATCH PANEL (12 PORT)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing and testing Fiber Optic Patch Panel (12-Port), including but not limited to, termination panel, cabling, and miscellaneous materials required to provide a complete and operational fiber connection.

Materials:

Termination panels (a.k.a. patch panels) shall be furnished and installed per the plans and these special provisions. Termination panels for branch fiber provided shall support 12 strands of fiber and SC connections. Termination panels shall be incorporated on a

mounting plate with other CCTV cabinet equipment (if applicable) and mounted on the side of the cabinet.

Construction Requirements:

All splices and connectors shall be prepared in accordance with the cable manufacturer's, splice manufacturer's, and connector manufacturer's recommendations. Each splice shall introduce less than 0.1 dB attenuation except where new cable is spliced to existing the maximum attenuation is 0.3 dB, and each connector shall introduce less than 0.5 dB attenuation. All splicing shall be done in a splice van or enclosure to protect fibers from excess dust. No open air splicing is allowed.

All connectors for termination shall be factory assembled. No hot melt or mechanical connectors will be accepted.

Measurement:

The Fiber Optic Patch Panel (12-Port) will be measured as a unit for each item, furnished and installed, complete in place.

Payment:

The accepted quantity of Fiber Optic Patch Panel (12-Port), measured as provided above, will be paid for at the contract unit price each, complete in place and successfully tested.

ITEM NO. 134 CCTV CAMERA AND FIELD EQUIPMENT

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing and testing CCTV cameras and associated equipment including, but not limited to, cameras, camera housings, pan/tilt/zoom assemblies, mounting hardware, power/communications/video cabling and miscellaneous materials required to provide a complete and operational CCTV system.

Materials:

The CCTV cameras will be the following:

Manufacturer	Model Number
Axis Communications Camera:	P5655-E
Midspan POE:	T8134 60W
Pole Mount:	T91L61

Cable:	Belden 7929A CAT5E
--------	--------------------

Refer to the Project Plans for specific CCTV requirements. All materials provided will be from new un-depreciated stock. Refurbished materials are not acceptable. All materials provided will be currently supported by the manufacturer and not scheduled for end-of-life.

The Contractor will furnish mounting arms and required mounting hardware to install the CCTV assembly on the poles as shown on the Project Plans. The Contractor will supply all grommets, connectors, cabling, nipples, and incidental hardware required to install the power and network cabling from the CCTV cabinet to the CCTV Assembly.

The Contractor will coordinate with the City to obtain IP addressing, and program IP and other communications parameters into the CCTV camera.

Construction Requirements:

The Contractor will mount the CCTV assembly which includes the camera mount, camera housing, camera, zoom lens, tilt/pan drive, and receiver/driver on traffic signal poles per the requirements of the CCTV camera supplier.

No wire, cables, or conductors will be exposed from the base of the tilt/pan drive to the ground. All conductors will be routed inside the support structure.

The surge suppression rack will be installed in the traffic signal cabinet and all surge suppressors connected per the supplier/manufacturer's instructions. All surge protector leads will be as straight and short as possible. The mounting bolts for the chassis and terminal strips will not protrude from the outside of the enclosure. All cabling, connectors, and hardware required to interconnect the various CCTV field and fiber optic communications equipment will be furnished and installed by the Contractor.

(A) Test Requirements

(1) General:

All CCTV components will be subject to testing and monitoring to determine conformance with all applicable specifications and to ensure proper operation of the equipment and system.

(2) Stand-Alone Tests:

The test will exercise all stand-alone (non-network) functional operations of the CCTV. The tests will verify the following:

- Control of focus, zoom, digital zoom, white balance, iris, tilt/pan, and power on/off
- Response to automatic preset positioning commands
- Display of Camera ID information and directional indicators
- Video "blacked out" when in a privacy zone

- Presence and quality of video signal during bright sunlight and night conditions
- Retention of non-volatile RAM data (i.e., sector text, preset positions)

Measurement:

The CCTV Camera and Field Equipment will be measured as a unit for each item, furnished and installed, complete in place.

Payment:

The accepted quantity of CCTV Camera and Field Equipment, measured as provided above, will be paid for at the contract unit price each, complete in place and successfully tested.

ITEM NO. 135 FIELD HARDENED ETHERNET SWITCH

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install Field Hardened Ethernet Switches, capable of providing 8-port managed Ethernet communications and network-managed Layer 2 functionality.

Materials:

The supplied Ethernet Switches will be EtherWAN, Model No. EX78934E-0VB. The ethernet switch will include the following:

- One (1) Power Supply – Model No. EPOW-54-600 600W
- SFP Transceivers – Model No. EX-1250TSP-MB5L-AS (Four per Traffic Signal Cabinet)
- Four foot CAT6 Cables (Seven per Traffic Signal Cabinet)

General Requirements:

The Ethernet switch will provide a minimum of four 1000Base-Tx and four gigabit combo ports. The four combo ports are 10/100/1000Mbps configurable for single mode optical fiber by the use of Comnet compatible SFP modules. One SFP module will be provided for each combo port (3 total) and will have a maximum path length of 10km at 1310nm Wavelength. Fiber optic jumper cables will be duplex LC (on SFP end) and ST (on termination panel end).The Contractor will provide a complete and operational communication system.

(A) Documentation:

Submittals and documentation will conform to Subsection 103 Submittal Requirements as amended by these Technical Specifications.

(B) Warranties:

All work will be guaranteed for a minimum of one year, after City Representatives and the City of Chandler have issued final system acceptance.

(C) Physical:

The Ethernet switch will conform to standard mounting shelf mounting provisions within the controller cabinet. No printed circuit board (PCB) will be openly exposed in the construction of the Ethernet modem. All connectors, indicators, and replaceable components will be permanently marked and traceable to the supplied documentation, including schematics and parts lists. The Ethernet switch's external markings will include the product name, model number, part number, serial number, manufacturer's name, and manufacturer's address.

(D) Environmental:

The Ethernet switch will be designed to operate in -20 to +70 degrees Celsius with no cooling air flow required.

(E) Maintenance Interface:

The Ethernet switch will include at least the following visual signal indicators:

- Transmit Data for each port or channel
- Receive Data for each port or channel
- Optic signal status
- Power (PWR)

(F) Electrical:

(1) Power:

The power supply will operate from 115 VAC $\pm 15\%$, 60 Hz $\pm 10\%$, single phase power. The power supply will include at least a 6' power cable with a male power connector compatible with standard UL requirements.

(2) Grounding Provisions:

Provisions to prevent damage to Ethernet Switch's electronics from lightning via any metallic cable interconnect with the transceiver will be included in the design.

(G) Communications Interface:

(1) Electrical Data Interface:

The Ethernet switch will connect to the Serial Server by a CAT-5e cable via RJ-

45 ports.

(2) Optical Interface:

The optical interface to the Ethernet switch's will be single mode fiber, via ST connectors. Mode fields of either depressed cladding or matched cladding will be accommodated by the connector. Female connectors will be provided on the Fiber Optic Transceiver's as follows:

- Transmit
- Receive

Construction Requirements:

Installation Requirements:

The Ethernet switch will be free of sharp edges. Power input requirements (i.e., voltage and current) will be marked on the case. All power connections will be protected against inadvertent contact by maintenance personnel.

Testing Requirements:

The Contractor will verify proper operation of the communications between each of the traffic signal controllers and the City's traffic signal control system in the TMC.

Measurement:

Field Hardened Ethernet Switch installation will be measured as a unit for each Ethernet switch, complete in place, to include, but not limited to power supply, CAT6 cabling, jumper cabling, SFP modules, and port connections, in accordance with the Project Plans and these Technical Specifications.

Payment:

The accepted quantity of Field Hardened Ethernet Switch, measured as provided above, will be paid for at the contract unit price per each, which will be compensation for the work, complete in place, as specified in the Project Plans and herein.

ITEM NO. 136 CONCRETE SCUPPER, CITY DET C-500, W=8 FT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct scuppers, of the widths indicated, at all locations as specified in the Project Plans. Each scupper will include a storm drain inlet marker per the City Detail C-508.

Materials:

All materials will conform to City Detail C-500 and MAG Detail 203 in their entirety.

Construction Requirements:

The work under these items will comply with City Detail C-500 and MAG Detail 203 in their entirety.

Measurement:

Concrete Scupper will be measured as a unit for each including storm drain inlet marker and painting of exposed angle iron.

Payment:

The accepted quantities of Concrete Scupper, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including inlet marker and painting of exposed angle iron.

ITEM NO. 137 CONCRETE SPILLWAY, CITY DET C-500, W=8.5 FT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct concrete spillways of the widths indicated, at all locations as specified in the Project Plans.

Materials:

All materials for spillway will conform to City Detail C-500 in its entirety.

Construction Requirements:

The work under these items will comply with City Detail C-500 in its entirety.

At locations where a new spillway abuts an existing spillway shown on the Project Plans, the Contractor will provide dowels space no more than 12 inches on center in the center of the existing spillway. Dowels will be 12 inches long of #4 rebar with minimum embed of 4.5 inches. Drill and epoxy dowels with Hilti Hit-Hy 200 adhesive or approved equal. The existing spillway slab will be roughened to +/-1/4 inch amplitude prior to pouring new spillway.

Measurement:

Concrete Spillways will be measured as a unit for each linear foot of spillway constructed.

Payment:

The accepted quantities of spillway, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place, including drilling, dowels, and epoxy.

- ITEM NO. 138 CATCH BASIN, MAG DET 533-1, TYPE D, ONE 3 FT WING**
- ITEM NO. 139 CATCH BASIN, MAG DET 533-1, TYPE D, TWO 3 FT WINGS**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for installing catch basins at locations as specified in the Project Plans and in conformance to MAG Details 532 and 533-1.

Material:

All materials will conform to MAG Details 532 and 533-1, in their entirety.

Construction Requirements:

The work under these items will conform to MAG Details 532 and 533-1, in their entirety.

Each catch basin will include an inlet marker per City Detail C-508.

Measurement and Payment:

All catch basins will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. No additional payment will be made for trash racks, removal of obstructions, excavation, bedding, backfilling, compacting, inlet markers and joint materials, the cost being considered incidental to this item.

- ITEM NO. 140 CONCRETE MASONRY WALL (FULL WALL)**
- ITEM NO. 141 CONCRETE MASONRY WALL (PARTIAL WALL VIEW FENCE)**
- ITEM NO. 142 CONCRETE MASONRY WALL (FULL WALL WITH DOOLEY FOUNDATION)**

Description:

The work under this item will include furnishing of all materials, personnel, and equipment necessary to construct concrete masonry walls on private property in accordance with the details shown on sheet DTL01 and DTL02 of the Project Plans and at locations designated on the Project Plans.

Materials:

All materials will comply with MAG Uniform Standard Specifications Sections 775 in its entirety. Mortar and grout will conform to MAG Uniform Standard Specifications Section 776. Reinforcing steel will conform to MAG Uniform Standard Specifications Section 727. Portland cement concrete will conform to MAG Uniform Standard Specifications Section 725. Concrete for the CMU wall footings and drilled piers shall be MAG Class A concrete and as specified in the Project Plans.

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 510 in its entirety, including all City of Chandler supplements except as modified herein and as shown on the Project Plans.

The drilled pier foundations for the Dooley Wall will conform to Sections 609-1 through 609-3 of the ADOT Standard Specifications unless otherwise noted in these specifications. A Confirmation Shaft (609-3.02) and Integrity Testing (609-3.05) will not be required. Concrete will be placed, finished and cured in accordance with MAG Uniform Standard Specifications Section 505.

The Contractor will construct a new pull box to connect to the private power feed (terminated near new wall alignment under REMOVE WALL item) and furnish and install new 1" conduit with pull string and flush mounted light fixture mounting box in the entrance pilasters as shown on DT01 of the Project Plans to provide for future entry lighting.

Ornamental steel fence on the Partial Wall View Fence will be Ameristar Fence "Montage Plus Majestic", black finish or approved equal and conform to the details on DTL01 of the Project Plans. The Contractor will submit shop drawings for approval by City Representative. The Contractor will follow manufacturer requirements.

Measurement:

Concrete Masonry Wall will be measured by the linear foot measured at the center of the wall.

Payment:

The accepted quantities of Concrete Masonry Wall measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place as shown on the Project Plans.

No additional payment will be made for work to reconnect the existing power feed to the new entry pilasters, the cost being considered incidental to this item.

ITEM NO. 143 RE-INSTALL EXISTING WROUGHT IRON SWINGING GATE (APN 304-81-221C)

Description:

The work under this item will include furnishing of all materials, personnel, and equipment necessary to re-install the existing gate at the entry of APN 304-81-221C.

Materials:

All materials will comply with MAG Uniform Standard Specifications Sections 775 in its entirety. Mortar and grout will conform to MAG Uniform Standard Specifications Section 776. Reinforcing steel will conform to MAG Uniform Standard Specifications Section 727. Portland cement concrete will conform to MAG Uniform Standard Specifications Section 725. Concrete for the CMU wall footings shall be MAG Class A concrete and as specified in the Project Plans.

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 510 in its entirety, including all City of Chandler supplements except as modified herein and as shown on the Project Plans.

Measurement:

Re-install Gate will be measured by lump sum and will include all work necessary to restore the entry in-kind with the existing condition.

Payment:

The accepted quantities of Re-install Existing Wrought Iron Swinging Gate measured as provided above, will be paid for at the contract unit price per lump sum, which price will be full compensation for the item, complete in place as shown on the Project Plans.

No additional payment will be made for re-installing detection equipment for automatic gate opening function, the cost being considered incidental to this item.

ITEM NO. 144 RECONSTRUCT DECORATIVE WALL, MATCH IN-KIND (APN 304-81-221C)

Description:

The work under this item will include furnishing of all materials, personnel, and equipment necessary to construct concrete masonry wall at the entry of APN 304-81-221C to match in-kind.

Materials:

All materials will comply with MAG Uniform Standard Specifications Sections 775 in its entirety. Mortar and grout will conform to MAG Uniform Standard Specifications Section 776. Reinforcing steel will conform to MAG Uniform Standard Specifications Section 727. Portland cement concrete will conform to MAG Uniform Standard Specifications Section 725. Concrete for the CMU wall footings shall be MAG Class A concrete and as specified in the Project Plans.

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 510 in its entirety, including all City of Chandler supplements except as modified herein and as shown on the Project Plans.

Measurement:

Reconstruct Decorative Wall will be measured by lump sum and will include all work necessary to restore the entry in-kind with the existing condition.

Payment:

The accepted quantities of Reconstruct Decorative Wall measured as provided above, will be paid for at the contract unit price per lump sum, which price will be full compensation for the item, complete in place as shown on the Project Plans.

ITEM NO. 145 CONCRETE LINED (IRRIGATION) DITCH WITH 1 FT BOTTOM

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing concrete ditches at locations as specified in the Project Plans.

Materials:

Concrete is to be Class B per MAG Spec Section 725 and as specified in the Project

Plans.

Construction Requirements:

Concrete ditches including ditch pads and ditch bends will be constructed in compliance with the detail on drawing PI01 of the Project Plans. Ditch bends will meet the same thickness requirements as the ditch, and will include jointing materials capable of creating a water-tight joint between ditch sections.

Measurement and Payment:

Concrete Lined Ditch will be measured per linear foot of ditch and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place. No additional payment will be made for ditch pads, radius corners, connections to headwalls, materials, removal of obstructions, excavation, bedding, backfilling, compacting, and joint materials, the cost being considered incidental to this item.

- ITEM NO. 146 SAWCUT DITCH AT TIE-IN**
- ITEM NO. 147 CONCRETE DITCH TERMINATION (HAND PLACED)**

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing ditch tie-ins and hand placed concrete ditch terminations.

Materials:

Concrete is to be Class B per MAG Spec Section 725 and as specified in the Project Plans.

Construction Requirements:

The work under this item will comply with the details in the Project Plans. Ditch terminations will meet the same thickness requirements as the ditch, and will include jointing materials capable of creating a water-tight joint between it and adjoining ditch sections.

Measurement and Payment:

Sawcut Ditch at Tie-in will be measured as a unit for each tie-in and Concrete Ditch Termination (Hand Placed) will be measured as a unit for each termination and both will be paid for at the contract unit price each, which price will be full compensation for the item, complete in place. No additional payment will be made for removal of obstructions, excavation, bedding, backfilling, compacting, and joint materials, the cost being

considered incidental to this item.

**ITEM NO. 148 IRRIGATION VALVE, 12 IN WITH CONCRETE SCOURING BASIN
PER MAG DET 506**

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing irrigation valves, the tee on the irrigation line and riser pipe to the valve at locations and to dimensions shown on the Project Plans and in accordance to MAG Detail 506.

Materials and Construction Requirements:

Irrigation valves will be constructed in compliance with MAG Detail 506, and all referenced specifications therein in their entirety.

Measurement and Payment:

Irrigation Valve, 12 In (MAG Det 506) will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. No additional payment will be made for removal of obstructions, excavation, bedding, backfilling, compacting, and joint materials, the cost being considered incidental to this item.

ITEM NO. 149 HEADWALL, MAG DET 502-1 (PRIVATE IRRIGATION)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install irrigation headwalls, including the trash racks at the locations as specified in the Project Plans.

Materials and Construction Requirements:

The work under this item will comply with MAG Detail 502-1.

Measurement and Payment:

Headwalls, including trash racks, will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 150 STEEL CASING PIPE SLEEVE, 54 IN DIA.

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the trenchless operation to install a steel casing under RWCD facilities using horizontal earth auger boring (jack and bore) as shown in the Project Plans.

Materials:

Materials shall comply with MAG Standard Specifications Section 602.

Construction Requirements:

Contractor will conform to RWCD construction requirements and coordination requirements. For other requirements not covered by RWCD, the Contractor will comply with MAG Standard Specifications Section 602 as shown in the Project Plans.

Measurement and Payment:

Steel Casing will be measured per the number of horizontal linear feet from the end of the steel casing at the bore pit to the end of the steel casing in the reception pit as shown on the Project Plans. Steel Casing will be paid for at the contract unit price per linear foot, which will be full compensation for the work, complete in place, including but not limited to excavation, trenchless installation, bulkheads, grout, rails, skids, straps, and backfill. Payment for steel casing does not include payment for the carrier pipe which will be paid for separately at the contract unit price for the carrier pipe.

ITEM NO. 151 6 IN DUCTILE IRON PIPE WATERLINE WITH FITTINGS

Description:

The work under these items will include the furnishing of all materials, personnel, and equipment necessary to install potable waterlines of the sizes, materials, and locations shown on the Project Plans. Work includes extending several existing potable water stubs and providing new stubs for future development as shown on the Project Plans.

Construction Requirements:

All work and materials will comply with the appropriate MAG Specification Sections and appropriate City of Chandler Supplement to MAG.

No field cuts of restrained pipe are permitted without prior approval of City Representatives.

Restrained joints for fittings will be mechanical joint fittings with wedge-type mechanical pipe-grippers or flange. The wedges will be ductile iron heat treated to a minimum hardness of 370 BHN. The mechanical joint restraint will have a working pressure of 350 psi.

All pipe and fittings will be wrapped in a polyethylene sleeve.

Water pipe bedding will be per City of Chandler Detail C-308.

Trench replacement will be "T-Top" per MAG Detail 200-1 and 200-2.

Measurement:

Potable water pipelines, of the sizes shown on the Project Plans will be measured by linear foot. There will be no measurement for fittings, thrust blocks, adaptors, couplings, polywrap, testing, trench replacement, removal of caps, or other materials and labor needed to construct the potable waterlines unless otherwise quantified in the bid schedule, the cost of these items will be considered included in this item.

There will be no measurement for additional valves, fittings, or any other improvements not specifically included in the project plans that may be needed for testing, isolating, or other reason to construct the waterlines.

Payment:

The accepted quantities of potable water pipelines, measured as provided above, will be paid for at the contract unit price as indicated above, which price will be full compensation for the item, complete in place. There will be no additional payment for restrained joints, fittings, thrust blocks, adaptors, couplings, horizontal realignment, temporary paving, trench replacement, removal of caps, or other materials and labor needed to relocate the waterlines as shown on the Project Plans, the cost of these items will be considered included in other bid items for which they are necessary.

No payment will be made for additional valves, fittings, or any other improvements not specifically included in the Project Plans that may be needed for testing, isolating, or other reason to construct the waterlines as shown on the Project Plans. These will be included in the cost of this item and will be at no additional cost to the City.

Even if not specifically shown on the boring logs, the Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, sand, perched groundwater, historic or prehistoric cultural resources, or other differing site conditions on this project. There will be no additional compensation made for any differing site condition that may be encountered. Additional work items, such as trench boxes, laying back trenches, soil pumping mitigation, etc., associated with unforeseen soil conditions will be considered incidental to this item.

- ITEM NO. 152 REMOVE FIRE HYDRANT**
- ITEM NO. 153 REMOVE EXISTING FLUSHING PIPE AND METER BOX**
- ITEM NO. 154 INSTALL FIRE HYDRANT PER GIL-320**

Description:

The work under these items will include the furnishing of all materials, personnel, and equipment necessary to remove fire hydrants and flushing pipes with meter box and install fire hydrants at locations shown on the Project Plans.

Construction Requirements:

Removal of existing fire hydrants and meter boxes will comply with MAG Standard Specifications Section 350 in its entirety.

All work and materials for installing fire hydrants will comply with Town of Gilbert Detail GIL-320.

Measurement:

Remove Fire Hydrant, Meter Box and Install Fire Hydrant will be measured by unit each. No additional measurement will be made for pipe, fittings, or valves, the measurement of these items will be considered included in other bid items.

Payment:

The accepted quantities of Remove Fire Hydrant, Remove Meter Box, and Install Fire Hydrant as provided above, will be paid for at the contract unit price as indicated above, which price will be full compensation for the item, complete in place. There will be no additional payment for restrained joints, fittings, thrust blocks, adaptors, couplings, horizontal realignment, temporary paving, trench repair, or other materials and labor needed to construct fire hydrants as shown on the Project Plans, the cost of these items will be considered included in other bid items for which they are necessary.

No payment will be made for additional valves, fittings, or any other improvements not specifically included in the Project Plans that may be needed for testing, isolating, or other reason in order to construct fire hydrants as shown on the Project Plans.

ITEM NO. 155 8 IN AWWA C-900, CLASS 150 WATERLINE WITH FITTINGS

Description:

The work under these items will include the furnishing of all materials, personnel, and equipment necessary to install 8 inch waterlines at locations shown on the Project Plans.

Work includes extending existing water stubs that are part of the Town of Gilbert's system beyond the proposed roadway widening.

Construction Requirements:

All work and materials will comply with the appropriate MAG Specification Sections and Town of Gilbert Standards.

No field cuts of restrained pipe are permitted without prior approval of City Representatives.

Restrained joints for fittings will be mechanical joint fittings with wedge-type mechanical pipe-grippers or flange. The wedges will be ductile iron heat treated to a minimum hardness of 370 BHN. The mechanical joint restraint will have a working pressure of 350 psi.

Resilient wedge gate valves will be used on all water lines, unless otherwise noted and approved through the plan review process.

All pipe and fittings will be wrapped in a polyethylene sleeve.

Trench replacement will be "T-Top" per MAG Detail 200-1 and 200-2.

Measurement:

Water pipelines, of the sizes shown on the Project Plans will be measured per linear foot. There will be no measurement for fittings, thrust blocks, adaptors, couplings, polywrap, testing, removal of caps, or other materials and labor needed to construct the reclaimed waterlines, unless otherwise quantified in the bid schedule, the cost of these items will be considered included in other bid items for which they are necessary.

Additional valves, fittings, or any other improvements not specifically included in the project plans that may be needed for testing, isolating, or other reason in order to construct the reclaimed waterlines will be included in the cost for which such work is necessary and will be at no additional cost to the City.

Payment:

The accepted quantities of waterline items, measured as provided above, will be paid for at the contract unit price as indicated above, which price will be full compensation for the item, complete in place. There will be no additional payment for restrained joints, fittings, thrust blocks, adaptors, couplings, horizontal realignment, temporary paving, removal of caps, or other materials and labor needed to relocate the waterlines as shown on the Project Plans, the cost of these items will be considered included in other bid items for which they are necessary.

No payment will be made for additional valves, fittings, or any other improvements not specifically included in the Project Plans that may be needed for testing, isolating, or other reason in order to construct the waterlines as shown on the Project Plans.

Even if not specifically shown on the boring logs, the Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, sand, perched groundwater, historic or prehistoric cultural resources, or other differing site conditions on this project. There will be no additional compensation made for any differing site condition that may be encountered. Additional work items, such as trench boxes, laying back trenches, soil pumping mitigation, etc., associated with unforeseen soil conditions will be considered incidental to this item.

ITEM NO. 156 6 IN GATE VALVE WITH BOX AND COVER, MAG DET 391-1, TYPE C

ITEM NO. 157 GATE VALVE BOX AND COVER PER MAG DET 340 AND STAINLESS-STEEL TAPPING SLEEVE

Description:

The work under this item consists of installing gate valves, including valve box, gravel, geotextile fabric, concrete support block, excavation and backfilling for both waterline replacement applications and landscape irrigation applications at the locations designated and in accordance with the details shown on the Project Plans and in accordance with the requirements of these Technical Specifications.

Materials:

All materials will conform to City of Chandler Standards unless otherwise specified on the Project Plans or in these Technical Specifications

Construction Requirements:

All work will comply with the appropriate MAG and City Specification Sections.

Valve boxes that will be located within proposed gutters will have a debris cap per MAG Detail 392. Contractor will be responsible for making this determination. Any valve boxes installed within proposed gutters without a debris cap will be required to be fitted with a debris cap at the Contractor's expense.

Resilient wedge gate valves will be used on all water lines, unless otherwise noted and approved through the plan review process.

Measurement:

Gate Valves will be measured on a per each basis.

Payment:

The accepted quantities of Gate Valves, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work complete in place, as described and specified herein and on the Project Plans.

No payment or direct payment will be made for the gravel sump, geotextile fabric, or 5-foot-long operating handles, the cost considered included in the item.

ITEM NO. 158 MAINTENANCE OF PLANT OPERATION (MOPO)

Description:

Work will include preparation of a maintenance of plant operation (MOPO) to keep waterlines functioning during construction of the new waterline throughout the project limits. The work under this item will consist of furnishing all materials, labor, equipment, and coordination required to meet the requirements of the approved MOPO.

Construction Requirements:

Contractor will prepare a MOPO that provides sufficient detail on the required sequencing to ensure the continuous operation of the existing waterlines and the numerous services that are fed from the existing waterlines along the project limits. These include individual water services, fire hydrants, pipeline feeds, and fire department connections. The Contractor is hereby advised that the long term shut downs of the existing waterline will not be permitted.

The MOPO will at the minimum include the following:

- Timing and method for each waterline tie in.
- Method of keeping existing line functioning prior to connecting water services, fire hydrants, pipeline feeds, and fire department connections to the new waterline. This may include temporary tie-ins, temporary valving, and temporary thrust restraint.
- Detailed schedule for overall installation of the waterline and abandonment of existing waterline, including the preparation of a construction sequencing plan. The schedule for the waterline construction and abandonment work will align with the sequencing plans or a revised sequencing plan approved by City Representatives.
- Timing and method of removal of temporary improvements necessary for providing continuous water service such as temporary tie-ins, temporary valving, and

temporary thrust restraint. Detail will be provided as to the material used including, but not limited to size and material of pipe and valves, size of thrust blocks, and size and manufacturer of adaptor couplings.

Contractor will submit MOPO to City Representatives for review and approval prior to starting waterline construction.

Work under this item will also include work necessary to meet the requirements of the approved MOPO including temporary tie-ins, temporary valving, insertion valves such as Inserta Valve, and temporary thrust restraint. Improvements are anticipated to include at a minimum piping, valves, thrust blocks, trenching, excavation, temporary pavement, traffic control, coordination with property owners, and coordination with City staff.

Measurement and Payment:

Maintenance of Plant Operation (MOPO) will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work, complete in place, including all required labor, material, and coordination required to prepare a detailed MOPO and the associated work to meet the requirements of approved MOPO. No separate measurement will be made for temporary thrust blocks, temporary valves, insertion valves such as Inserta Valve, temporary pipe installation, development of a MOPO plan, implementation of the MOPO plan, coordination, labor, and materials as required to maintain constant services to all existing water users within the projects limits.

ITEM NO. 159 CONCRETE PIPE COLLAR FOR 18 IN PIPE, MAG DET 505

ITEM NO. 160 CONCRETE PIPE COLLAR FOR 24 IN PIPE, MAG DET 505

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct pipe plugs and pipe collar at all locations as specified in the Project Plans.

Materials:

Pipe plugs will conform to MAG Detail 427. Concrete Pipe Collars will conform to MAG Detail 505.

Construction Requirements:

Pipe plugs will conform to MAG Detail 427. Concrete Pipe Collars will conform to MAG Detail 505.

Measurement and Payment:

Pipe Plug and Concrete Pipe Collar will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

Any temporary pavement needs will be considered included in this bid item.

- ITEM NO. 161 12 IN RGRCP, CLASS IV**
- ITEM NO. 162 18 IN RGRCP, CLASS IV**
- ITEM NO. 163 24 IN RGRCP CLASS III**
- ITEM NO. 164 24 IN RGRCP, CLASS IV**
- ITEM NO. 165 24 IN RGRCP, CLASS V**

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for installing RGRCP as specified in the Project Plans.

Materials:

RGRCP will be in conformance with MAG Uniform Standard Specifications Section 618.2 and 735.

Construction Requirements:

This work also includes the installation of prefabricated tees for the connection to existing irrigation systems. All storm drain and reinforced concrete pipe construction will be constructed in compliance with MAG Standard Specifications Section 618 in its entirety.

Comply with MAG Standard Detail 505 in its entirety.

Trench replacement will be "T-Top" per MAG Detail 200-1 and 200-2.

Measurement and Payment:

All RGRCP will be measured per linear foot of pipe and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place, including the pipe, connections to existing facilities/pipelines, removal of obstructions, excavation, bedding, backfilling, compacting, testing, temporary pavement and joint materials.

No additional payment will be made for slurry of pipe segments as determined by the City, the cost being considered incidental to this item.

Even if not specifically shown on the boring logs, the Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, sand, perched groundwater, historic

or prehistoric cultural resources, or other differing site conditions on this project. There will be no additional compensation made for any differing site condition that may be encountered. Additional work items, such as trench boxes, laying back trenches, soil pumping mitigation, etc., associated with unforeseen soil conditions will be considered incidental to this item.

ITEM NO. 166 STORM DRAIN MANHOLE, MAG DTL 520 & 522, CITY DET C-400

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to construct storm drain manholes at locations as specified in the Project Plans.

Materials and Construction Requirements:

Storm Drain Manholes will comply with per MAG Details 520 and 522 and City Detail C-400 in their entirety.

Measurement and Payment:

Storm Drain Manholes will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 167 DRYWELL, CITY DET C-501

Description:

The work under this item will consist of furnishing all labor, materials and equipment necessary to construct drywells in locations shown on the Project Plans.

Materials:

The drywell will conform City Detail 501 in its entirety.

Construction Requirements:

Infiltration results in proximity to proposed drywell location will be taken by the drywell manufacturer and will be provided to the City Representatives and Contractor as soon as possible. The Contractor will not construct any drywell systems without direction and approval by City Representatives.

The drywells will be constructed per the Project Plans, City Detail 501, and in accordance with Engineering & Design Standards Manual, Chapter 3 – Storm Drainage System Design. All drywells must be registered with ADEQ and constructed by an ADEQ licensed

contractor. Approved registration materials and map identifying drywell locations(s) must be provided to City Representatives.

Measurement and Payment:

Drywalls will be measured as unit for each and will be made at the contract unit price each for each accepted drywell installed in place and fully operational with post-construction performance testing accepted by City Representatives.

ITEM NO. 168 BUBBLE-UP STRUCTURE, COC DET C-507

Description:

The work under this item will consist of furnishing all labor, materials and equipment necessary to construct bubble-up structures in places shown on the Project Plans.

Construction Requirements:

The bubble-up structures will be constructed per the detail in the Project Plans and City of Chandler Detail C-507.

Materials:

All concrete for the bubble-up structure construction will conform to MAG Uniform Standard Specifications section 725.

Bubble-up frame and cover will be constructed per City of Chandler Detail C-507.

Measurement:

Bubble-up Structure will be measured as a unit for each structure furnished and installed.

Payment:

Payment will be made at the contract unit price for each accepted Bubble-up Structure installed in place and fully operational with post-construction performance testing accepted by City Representatives.

ITEM NO. 169 IRRIGATION JUNCTION BOX, PER DETAIL SHEET PI01

Description:

The work under this item will consist of furnishing all materials, labor and equipment

necessary for installing irrigation junction boxes at locations and to dimensions shown on the Project Plans.

Construction Requirements:

Junction Boxes shall be constructed in compliance with the detail on sheet PI01 of the Project Plans, and all referenced specifications therein in their entirety. The junction box shall be monolithic cast-in-place concrete with 8" thick walls.

Measurement and Payment:

Irrigation Junction Box will be measured as a unit for each junction box and will be paid for at the contract unit price per each unit, which price shall be full compensation for the item, complete in place. Compensation shall include furnishing and installing the junction boxes, materials, removal of obstructions, excavation, bedding, backfilling, compacting and joint materials.

ITEM NO. 170 IRRIGATION CONTROL GATE, 24 IN WATERMAN C-10

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing irrigation control gates at locations and to dimensions shown on the Project Plans.

Construction Requirements:

Irrigation gates shall be constructed in compliance with the manufacturer's requirements, and all referenced specifications therein in their entirety,

Measurement and Payment:

Irrigation Control Gate will be measured as a unit for each gate and will be paid for at the contract unit price per each unit, which price shall be full compensation for the item, complete in place. Compensation shall include furnishing and installing the irrigation control gate, materials, removal of obstructions, excavation, bedding, backfilling,

compacting and joint materials.

ITEM NO. 171 ALLOWANCE: ROADWAY AND CONCRETE FLATWORK

Description:

The purpose of this allowance is to provide a funding source for any additional roadway and concrete flatwork work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional roadway work and concrete flatwork.

Any costs, fees, or charges necessary to open asphalt batch plant during off hours (i.e. weekend or week night) will be reimbursed from this allowance.

Contract reimbursement from this allowance (in whole or in part) is not ensured. Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional roadway and concrete flatwork work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Roadway and Concrete Flatwork will be made on an incremental basis in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 172 ALLOWANCE: LANDSCAPING

Description:

The purpose of the allowance is to create a funding source for any additional landscaping work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional landscaping work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional landscaping work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Landscaping will be made on an incremental basis in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 173 ALLOWANCE: TRAFFIC SIGNAL AND COMMUNICATIONS FACILITIES

Description:

The purpose of this allowance is to provide a funding source for any additional traffic signal and communication facilities work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional traffic signal and communications facilities work.

Contract reimbursement from this allowance (in whole or in part) is not ensured. Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional traffic signal and communications facilities work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Traffic Signal and Communications Facilities will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 174 ALLOWANCE: SRP ELECTRICAL

Description:

The purpose of this allowance is to provide a funding source for coordination and paying all necessary fees for permit and hook up to SRP to install a complete functioning electrical service to power the irrigation controllers and streetlighting. This item will include providing all permits, connection fees, foundations, junction boxes, conduit risers, conduit sweeps, coordination, and required protection when working near overhead lines required by SRP to provide the electrical connection from the SRP transformer to the proposed service meter pedestal.

Construction Requirements:

All work will conform to the requirements of SRP. The Contractor will contact the SRP to coordinate power service and construction requirements.

The Contractor will secure the necessary utility company permits, pay the related fee(s) for said permit including utility company connection fees, and coordinate the installation of the required power services.

The meter will be energized and have the account established in the name of the City of Chandler.

Measurement and Payment:

Payment for Allowance: SRP Electrical will be made on an incremental basis in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 175 ALLOWANCE: FURNISH AND INSTALL TEMPORARY FENCING

Description:

The purpose of this allowance is to provide a funding source for furnishing and installing any temporary fencing and gates as approved by City Representatives. The Contractor will be reimbursed for the associated costs of furnishing and installing temporary fencing and gates.

Contract reimbursement from this allowance (in whole or in part) is not ensured. Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

See items Fence (Replace In Kind), Remove and Reconstruct Fence, Chain Link Fence Gate, 24' Double Swing, MAG DET 160, and Fence Gate (Size Per Plans) of these technical specifications and comply with MAG Uniform Standard Specifications Section 420 in its entirety, including all City of Chandler supplements except as modified herein, for construction requirements.

Measurement and Payment:

Payment for Allowance: Furnish and Install Temporary Fencing will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 176 ALLOWANCE: WET UTILITIES

Description:

The purpose of the allowance is to create a funding source for any additional wet utility (water, sanitary sewer, reclaimed water) work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional wet utility work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional wet utility work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Wet Utilities will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 177 ALLOWANCE: DRY UTILITIES

Description:

The purpose of the allowance is to create a funding source for any additional dry utility work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional dry utility work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional dry utility work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Dry Utilities will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 178 ALLOWANCE: STORM DRAINAGE

Description:

The purpose of the allowance is to create a funding source for any additional storm drain work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional storm drain work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional storm drain work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Storm Drain will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 179 ALLOWANCE: REMOVALS

Description:

The purpose of the allowance is to create a funding source for any additional removal work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional roadway work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional removal work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Removals will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 180 ALLOWANCE: RWCD & PRIVATE IRRIGATION

Description:

The purpose of the allowance is to create a funding source for any additional RWCD and private irrigation work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional RWCD and private irrigation work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional RWCD and private irrigation work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: RWCD and Private Irrigation will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

SOILS INFORMATION

The material boring logs shown in the Geotechnical Report are provided in Appendix D. It is not intended to imply that the character of materials shown in the logs is representative throughout the project. The soil borings are indicative of the soil characteristics only at the locations and to the depths of each of the borings.

Even if not specifically shown on the boring logs, the Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, sand, perched groundwater, historic or prehistoric cultural resources, or other differing site conditions on this project. There will be no additional compensation made for any differing site condition that may be encountered. It is the Contractor's responsibility to include the cost of any additional work items, such as trench boxes, laying back trenches, soil pumping mitigation, etc., associated with unforeseen soil conditions in all contract bid items requiring earthwork and will be considered incidental.

ENVIRONMENTAL MITIGATION MEASURES

Full Environmental Report available upon request.

The Contractor will comply with the following environmental mitigation measures. The cost of complying with the environmental mitigation measures will be considered incidental to other project bid, including, but not limited to burrowing owls and other migratory birds. Note that references to Engineer in the below mitigation measures implies City Representatives.

The project mitigation measures are not subject to change without written approval

from the Federal Highway Administration.

Contractor Responsibilities:

1. If clearing, grubbing, or tree/limb removal will occur between March 1 and August 31, the contractor shall employ a qualified biologist to conduct a migratory bird nest search of all vegetation within the 10 (ten) days prior to removal. Vegetation may be removed if it has been surveyed and no active bird nests are present. If active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1 – February 28), vegetation removal is not subject to this restriction.
2. Prior to construction, all personnel who will be on-site, including, but not limited to, contractors, contractors' employees, supervisors, inspectors, and subcontractors shall review the attached Arizona Department of Transportation Environmental Planning "Western Burrowing Owl Awareness" flyer. See Appendix E.
3. If any burrowing owls or active burrows are identified the contractor shall notify the Engineer immediately. No construction activities shall take place within 100 feet of any active burrow.
4. If the Engineer in cooperation with the Environmental Planning Biologist determines that burrowing owls cannot be avoided, the contractor shall employ a qualified biologist holding a permit from the US Fish & Wildlife Service to relocate burrowing owls from the project area, as appropriate.
5. To prevent the introduction of invasive species seeds, all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris, including plant parts, soil and mud, prior to the equipment entering the construction site.
6. To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil and mud, prior to leaving the construction site.
7. The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the State and Federal Noxious Weed and the State Invasive Species list in accordance with State and Federal Laws and Executive Orders. The plan and associated treatments shall include all areas within the project right of way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the City of Chandler Landscape Architect for review and approval prior to implementation by the contractor.

8. Prior to the start of ground-disturbing activities and throughout the duration of construction and any landscape establishment period, the contractor shall arrange for and perform the control of noxious and invasive species in the project area.
9. The contractor shall notify their employees prior to impact/disturbance where respirable crystalline silica dust may be created with regards to the US Department of Labor Occupation Safety and Health Administration Construction Standard (29 CFR 1926.1153). As part of this notification the OSHA Fact Sheets are provided in reference to this ruling: English: <https://www.osha.gov/Publications/OSHA3681.pdf>, and Spanish: https://www.osha.gov/OshDoc/data_General_Facts/crystalline-spanish.pdf must be made available to the area supervisor and reviewed with potentially affected employees, prior to work that could expose workers to respirable crystalline silica dust.

PERMITS

The Contractor will comply with the requirements of MAG Standard Specifications Sections 107.2 except as modified herein.

The Contractor will obtain all permit(s) required to construct the project, including but not limited to:

City Water Meter Permit

The Contractor will obtain City permit(s) required for fire hydrant water trucks (Contractor submits and pays for this permit, no separate payment will be made for this permit; the cost being considered as included in the price of other contract items) and new landscape water meters (City pays for the permit but Contractor must sign and pick up the permit).

City Encroachment, Civil and Building Permits

The Contractor will obtain City permit(s) required for encroachment, civil and structures. The City pays for the permits but Contractor must sign and pick up the permit.

City Administrative Use Permits

The Contractor will pay and obtain City permit(s) required for construction trailer and temporary facilities. No separate payment will be made for this permit, the cost being considered as included in the price of other contract items.

Maricopa County Permits

The Contractor will pay and obtain Maricopa County permit(s) required for traffic control within their jurisdiction. No separate payment will be made for this permit, the cost being

considered as included in the price of other contract items.

Air Quality Permit

The Contractor will obtain a Maricopa County Air Quality Permit for this project. The Contractor will be required to prepare a comprehensive fugitive dust control plan, in accordance with the guidelines established in Rule 310 of Maricopa County Regulation III, Control of Air Contaminants. The Contractor will complete and submit the control plan with the permit application and obtain approval from the County prior to any activities which may produce dust pollutants.

No separate payment will be made for the preparation, implementation of the fugitive dust control plan, or permit fees, the costs being considered as included in the price of contract items.

Erosion Control Permit

The Contractor will submit the Arizona Pollutant Discharge Elimination System Notice of Intent (NOI) and the Notice of Termination (NOT) to the Arizona Department of Environmental Quality. The Contractor and the City Representatives will jointly review the Stormwater Pollution Prevention Plan (SWPPP) prior to submission of the NOI and prior to the start of work. The SWPPP will be maintained throughout the duration of the project in accordance with the APDES requirements and a current version will be available at all times at the project site.

No separate payment will be made for the preparation, implementation of the SWPPP, or permit fees, the costs being considered as included in the price of contract items.

RWCD Permit

The Contractor will obtain a Notice to Proceed permit to perform work that is within an RWCD right-of-way or easement. The Contractor will submit plans and any other required information to RWCD to obtain approval to proceed with work within their right-of-way or easement. Contractor will be responsible to pay required Crossing Permit Fees, dry-up fees, and provide a cash or bond deposit, if necessary. No separate payment will be made for the preparation, implementation and fees associated with the RWCD permit, the costs being considered as included in the price of contract items.

Salt River Project (SRP) Construction License

This project requires the Contractor to remove existing SRP facilities in some locations and install new SRP facilities in other locations. As such, SRP requires the Contractor obtain a Construction License for a nominal fee. No separate payment will be made for the preparation of the construction license or license fees, the costs being considered as included in the price of contract items.

COOPERATION WITH UTILITIES

The Contractor shall comply with the requirements of MAG Standard Specifications Sections 105.6 and ADOT Standard Specifications Section 107.15 except as modified herein.

The locations of existing underground utilities have been shown on the Project Plans to the best of the Design Engineer’s knowledge and information provided by each utility company; however, it shall be the Contractor’s responsibility to notify Blue Stake at 602-263-1100 (1-800-STAKE-IT), field verify all utility locations and to coordinate in a timely manner with pertinent utility companies so that any obstructing utility installation may be adjusted without delay to the Contractor’s project schedule.

For new utilities (water, sanitary sewer, power, signal, fiber optic, electrical, drainage, etc.) that are installed as part of this contract, the Contractor shall act as the interim locator of the new utility until As-Builts are completed by the Contractor and Final Acceptance for the project is granted by the City of Chandler. The Contractor shall be responsible for locating all underground existing facilities by vacuum exploration (potholing) to determine depth, alignment, and clearance in a timely manner; the cost for potholing new or existing utilities shall be included in the cost for other items of work.

Coordination with the pertinent utility companies has been a part of the development of this project. Construction activities shall be coordinated and scheduled to incorporate the following applicable utility construction activities:

- Lumen Facility Relocations
- SRP Power 12kV Facility Relocations

The following telephone numbers should put the Contractor in contact with the proper personnel for coordination:

UTILITY COMPANY	CONTACT	PHONE
Lumen	Jason Jensen	801-735-2464
Cox	Nancy Manns	623-328-3884
Roosevelt Water Conservation District	Tabatha Langland	480-988-9586
Southwest Gas	Gene Florez	480-730-3841
Salt River Project	Christy Baltras	602-236-3117
Town of Gilbert	Tom Condit	480-503-6815
City of Chandler – Fiber	Gilbert Bracamonte	480-782-3310
City of Chandler – Traffic Signals	Dana Alvidrez	480-782-3470
City of Chandler – Municipal Utilities Department	Gina Ishida-Raybourn	480-782-3584

Regardless of the means and methods utilized during the construction of the work, the Contractor shall protect all existing utilities during construction. Any damages to the existing utilities resulting from the scope of work, shall be repaired and paid for by the Contractor. The Contractor shall follow all Blue stake and state laws regarding the protection of utilities during construction.

It shall be the Contractor's responsibility to determine the exact location of the utilities prior to any construction operations and to notify the above-mentioned utility companies at least two working days prior to commencing any work on the project.

The following utility companies have facilities needing adjustment prior to construction:

Lumen

Lumen has multiple facilities that are in conflict within the project limits. Lumen has existing facilities that are located along the southside of Chandler Heights Road throughout the project limits.

Lumen has existing overhead facilities underbuilt with SRP distribution on the south side of Chandler Heights Rd from STA 295+00 to STA 324+00. The Lumen overhead facility and the existing pedestals at the base of the existing overhead poles will be relocated underground by Lumen forces prior to construction.

Lumen has an existing vault on the south side of Chandler Heights Rd at STA 245+00 that will be relocated for construction of the proposed sidewalk ramp on the southwest corner of Chandler Heights Rd and Desert Jewel Blvd. The existing vault will be relocated outside of the proposed sidewalk ramp by Lumen forces prior to construction.

Lumen owned manholes that will require adjustments are to be completed by the Contractor as shown in the project plans. Lumen manhole adjustments will be completed during the City's planned roadway construction. The Contractor shall coordinate with Lumen for scheduling of work and access to the manholes.

The following utility companies have facilities needing adjustment during construction:

Salt River Project – Power

SRP – Power Distribution has existing facilities that are in conflict with the proposed improvements at multiple locations within the project limits. Conflicts include existing overhead distribution facilities located along the southside of Chandler Heights Road from approximately STA 295+00 to STA 324+00.

SRP job number T3129119

This job will remove the existing overhead power line located along the southside of Chandler Heights Road. SRP forces will complete the removal of the overhead poles and wires once the proposed underground system has been energized.

SRP job number T3129125

This job will underground the existing overhead power line located along the southside of Chandler Heights Road from approximately STA 295+00 to STA 324+00. The Contractor will be responsible for all trenching, conduit, streetlight pull boxes, ground rods, sweeps, etc. as part of the underground conversion and street lighting project. SRP will install the wire within the conduits and energize the streetlights. SRP will need a minimum of 30 days to pull wire, install equipment, energize, and remove equipment for the street lighting.

SRP job number T3129130

This job will install 2 new lights along the north side of Chandler Heights Road, west of Lindsay Road. The Contractor will be responsible for all trenching, conduit, streetlight pull boxes, ground rods, sweeps, etc. as part of the underground conversion and street lighting project. SRP will install the wire within the conduits and energize the streetlights. SRP will need a minimum of 30 days to pull wire, install equipment, energize, and remove equipment for the street lighting.

Any damage to existing, new or partially completed SRP facilities, including survey markers and staking, by the Contractor's forces or equipment will be the responsibility of the Contractor. No excavation shall take place without Blue Stake.

The Contractor will be required to stake final grades for new work to be performed by SRP such as: trench line, pad mounted equipment, pole location, etc. Horizontal and vertical controls must be established by the contractor in the immediate vicinity of the work for all grades and survey ties.

Any streetlights that are to be disconnected for removal and/or construction purposes require a disconnect letter from the City, and the Contractor shall give a minimum of 5 working days' notice for disconnect and/or reconnect.

If the streetlights are to be removed, SRP will only remove its cable from any conduit to the point of delivery and abandon the conduit and any direct buried cable. The Contractor should confirm ownership of the lights before any removal and disposal. The Contractor will be responsible for the cost of each disconnect or reconnect. Streetlights and interconnections are not the property of SRP.

A DISCONNECT IS ONLY THE REMOVAL OF THE METER. If total removal of electrical equipment is required, a written request to remove or abandon equipment is required from the Contractor and the City. Any removal fees for SRP, if not previously paid for by the City, will be paid by the Contractor and reimbursed to the contractor by the City if prompt

payment by the Contractor will expedite the removal.

An SRP inspector must inspect any construction performed by the Contractor for and on behalf of SRP. Any conduit installation or other work that is performed by the Contractor for and on behalf of SRP including street light conduits that is covered or closed before being inspected by SRP will be exposed for inspection at the Contractor's expense. A pre-activity meeting with SRP shall take place prior to the start of work. Pre-scheduling of inspection may be available after construction starts. The present phone number for scheduling inspection is (602) 236-0436. This number may change at the discretion of SRP.

The project has a network of underground power lines. All work at or in close proximity to said lines shall be performed in accordance with all Federal, State, and local laws and regulations, including but not limited to:

- A. Arizona law regarding "Underground Facilities" (A.R.S. 40-360.21, .22, .24, -.26 and .28).
- B. Arizona law regarding "High Voltage Power Lines and Safety Restrictions" I (A.R.S. 40-360.41 -.45).
- C. The Occupational Safety and Health Administration.
- D. The National Electric Safety Code.

City of Chandler Municipal Utilities Department

Water:

The City of Chandler Municipal Utilities has an existing 16 in DIP waterline that that located along the south side of Chandler Heights Road throughout the project limits and will be protected in place, except for the following improvements:

- Adjustments of existing waterline valves will be completed by the Contractor at the locations shown on the Project Plans.

Sewer:

The City of Chandler Municipal Utilities has existing sewer that is located along Chandler Heights Road throughout the project limits and will be protected in place, except for the following improvements:

- Adjustments of existing sewer manholes will be completed by the Contractor at the locations shown on the Project Plans.

Reclaimed Water:

The City of Chandler Municipal Utilities has an existing reclaimed waterline that is located along Chandler Heights Road throughout the project limits and will be protected in place, except for the following improvements:

- Adjustments of existing reclaimed waterline valves will be completed by the Contractor at the locations shown on the Project Plans.

Town of Gilbert

The Town of Gilbert has an existing 12" PVC waterline along Chandler Heights Road from 148th Street to Val Vista Drive. Existing waterline stubs will be extended from the existing line per the project plans.

All improvements to the Town of Gilbert existing 12" PVC waterline shall conform to Town of Gilbert standards as shown on the project plans.

The following utility companies have facilities in the area, but are not anticipated to be in conflict:

Cox Communications

Cox has existing underground facilities on the north and south side of Chandler Heights Road. There are no conflicts anticipated with the Cox facilities.

Roosevelt Water Conservation District (RWCD)

RWCD has an existing lateral on the north side of Chandler Heights Road from Gilbert Road to Val Vista Drive. There are existing manholes and delivery structures on this lateral that shall be protected in place. The segment of existing open ditch lateral located from White Place to the west side of the Chandler Pathways development (STA 259+25 and STA 266+50) will be relocated to a pipe lateral prior to the construction of this project by the Old Stone Ranch development project. There are no conflicts anticipated with the RWCD facilities.

Southwest Gas

Southwest Gas has an existing 4" gas line along Chandler Heights Road from Gilbert Road to Mustang Drive. Southwest Gas also has an existing 4" gas line along the south side of Chandler Heights Road from Lindsay Road to 146th Street. The existing Southwest Gas facilities will be protected in place. There are no conflicts anticipated with Southwest Gas facilities.

COOPERATION BETWEEN CONTRACTORS AND OTHER AGENCY PROJECTS

Contractor will conform to the requirements of MAG Section 105.7 except as modified herein.

The Contractor is advised that there will be construction activity by others adjacent to the project site. The Contractor will coordinate the work to accommodate the construction activities.

The Contractor will contact the City of Chandler, Town of Gilbert, Chandler Municipal

Airport, Federal Aviation Administration (FAA), RWCD, SRP, Chandler Public School District, Gilbert Public School District, ADOT, Maricopa County Department of Transportation (MCDOT) Flood Control District of Maricopa County (FCDMC), and adjacent private development contractors to verify other nearby projects in the vicinity of this project. Projects include but are not limited to:

- Chandler Heights Road Improvements (City Project Number ST1616.401)
- Lindsay Road Improvements (City Project Number ST2001.201)

The Contractor is advised to schedule and coordinate all work activities and regional transit so as not to adversely conflict with this work. This includes coordinating with schools regarding the relocation of school bus stops during construction. The Contractor will be expected to attend any monthly coordination meetings set up by other agencies or other prime contractors working on adjacent projects to discuss coordination.

NOTIFICATION TO PROPERTY OWNERS

The Contractor will provide advance notice (at least 30 days) to residential and local business property owners along Chandler Heights Road when constructing improvements adjacent to their property that may require action by a property owner to remove, relocate, etc. existing features that impede construction by the Contractor.

No separate payment will be made for providing advance notice, the costs being considered as included in the price of other contract items. Any claims resulting due to delay in providing sufficient notice by the Contractor will not be approved.

TRAFFIC CONTROL

Access Requirements for Pedestrians:

The Contractor will maintain ADA accessible passable walkway along Chandler Heights Road and Lindsay Road at all times during construction.

Traffic-Related Work Restrictions:

No lane restrictions or intersection closures will be allowed during special events or holiday times as determined by the City.

No trenches will be left open overnight in areas that are not fenced in to prohibit access to vehicles and pedestrians. All trenches within the roadway will be plated or backfilled and paved prior to allowing vehicles to travel on the section of roadway.

Traffic Signal Requirements:

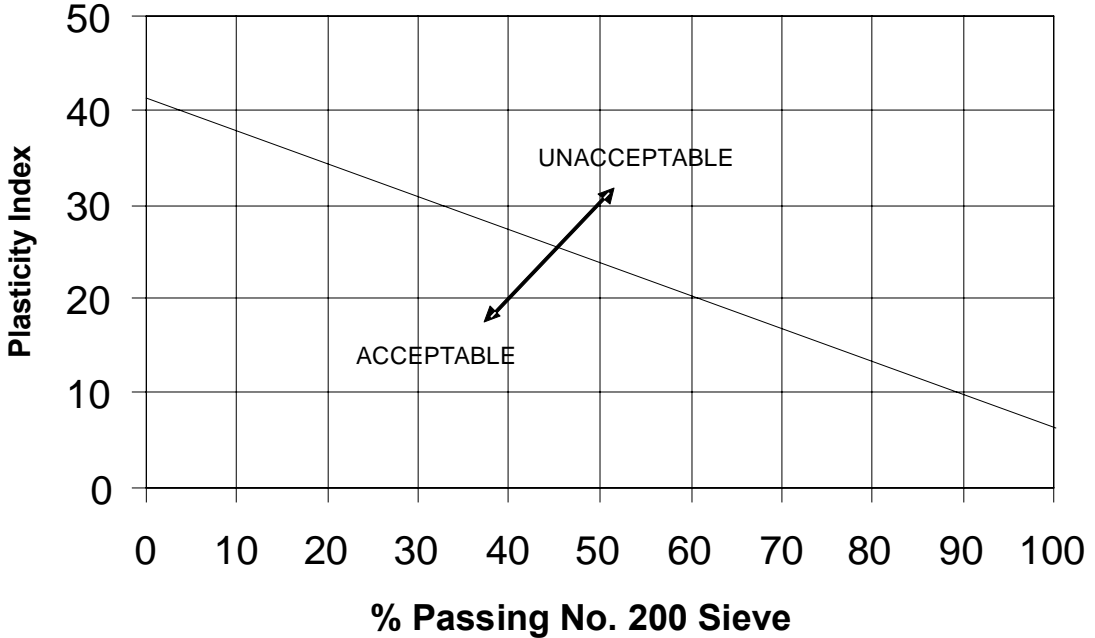
The existing traffic signal at the intersection of Chandler Heights Road and Lindsay Road will remain operational until the new traffic signal infrastructure has been constructed and ready for switch over. The traffic signal switch over does not have to be completed at one time and can be completed in phases as the new traffic signal construction is completed.

Portable temporary signal equipment will not be used under any circumstances.

APPENDIX A

Subgrade Acceptance Chart

SUBGRADE ACCEPTANCE CHART



Design R-Value = 20

Construction Control R-Value = 20

APPENDIX B

City of Chandler Request for Public Records



Chandler · Arizona
Where Values Make The Difference

Request for Public Records

Name	E-mail	Date
Agency/Company Name	Telephone No.	Fax No.
Street Address	City, State	Zip Code

Describe the record(s) you are requesting. Please include all pertinent information such as address, permit number, zoning case number, date, etc

<input type="checkbox"/> Permit <input type="checkbox"/> View <input type="checkbox"/> Copy	
<input type="checkbox"/> Certificate of Occupancy <input type="checkbox"/> View <input type="checkbox"/> Copy	
<input type="checkbox"/> Residential Plot Plan <input type="checkbox"/> View <input type="checkbox"/> Copy	
<input type="checkbox"/> Building Plans <input type="checkbox"/> View <input type="checkbox"/> Copy	
<input type="checkbox"/> Other <input type="checkbox"/> View <input type="checkbox"/> Copy	

Please indicate whether you will use the records for a non-commercial or a commercial purpose.

Non-Commercial

I declare that I have read and understood the Public Records Request Policy and General Information sheet regarding requests for public records from the Planning and Development Department. The records that I am requesting are **not** for a commercial purpose as defined by Arizona Revised Statutes §39-121.03(D). These records are for my use; I will not sell them to another person. I understand the City of Chandler does not guarantee the accuracy or completeness of these records and declare the City of Chandler, its officers and employees free from any and all damages, lawsuits, causes of action and liabilities that may result from my reliance upon and use of the above described information.

Print Name: _____ **Signature:** _____ **Date:** _____

Commercial – please complete the form for commercial use of public records.

For Records Office Use

Cost of Reproduction: _____ copies @ \$ _____ per copy. Postage charge (if any): \$ _____	Total: \$ _____
Completed by: _____	Date: _____
Comments: _____	

Mailing Address:
P.O. Box 4008, MS 401
Chandler, Arizona 85244-4008

Transportation and Development Department
Records Management Section
215 E. Buffalo St., Chandler Arizona

Telephone: (480) 782-3000
Fax: (480) 782-3055
www.chandleraz.gov
Form No: UDM-39/Planning
Rev: 7-30-14



Public Records Request Policy and General Information

Policy

It is the policy of the Planning and Development Department to comply with all City, State of Arizona, and Federal laws and regulations regarding the release of public records. Public records in the custody of the Planning and Development Department are open to inspection by any person at all times during regular office hours (8:00 a.m. to 5:00 p.m. Monday-Friday). However, please be aware that the City may deny inspection of certain records if they are made confidential by State or Federal law, or involve the privacy interests of persons, or if disclosure would be detrimental to the best interests of the City

Requests for Public Records for a Non-Commercial Purpose

Please submit requests for inspection or copies of public records in writing, with adequate and detailed information. The City is not responsible for creating new documents or generating reports in response to non-specific requests.

Requests for copies of public records for a non-commercial purpose will be processed within 10 working days, unless the request is for an unusually large number of records. The City will charge a reasonable fee to cover reproduction expenses. Checks should be made payable to the City of Chandler.

Requests for Public Records for a Commercial Purpose

Requests for public records to be used for commercial purpose must be accompanied by a statement of that purpose, with a notary affidavit. These requests will be sent to the appropriate Division Manager's office for verification and authorization; please allow extra time for processing. The Arizona Revised Statutes §39-121.03(D) defines a commercial purpose as:

- Sale or resale.
- Producing a document containing all or part of the copy, printout or photograph for sale.
- Obtaining names and addresses from public records for the purpose of solicitation or the sale of names and addresses to another for the purpose of solicitation.
- Any purpose in which the purchaser can reasonably anticipate the receipt of monetary gain from the direct or indirect use of the public record.

It is a violation of the public record law to:

- Obtain a public record for a non-commercial purpose and use it for a commercial purpose.
- Obtain a public record for a commercial purpose and use it for a different commercial purpose.

APPENDIX C

ESRI GPS Data Dictionary

DATA DICTIONARY
FOR
WATER, SEWER, RECLAIM & STORM

DATA DICTIONARY:
WATER

FeatureClassName FITTING_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	WS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WS_SPATIALSOURCE_STD	GPS
MATERIAL	String	20	MATERIAL	WS_MATERIAL	null
DIAMETER1	String	8	DIAMETER1	null	null
DIAMETER2	String	8	DIAMETER2	null	null
TYPE	String	30	TYPE	WS_FITTING_TYPE	null
BEND	String	20	BEND	WS_FITTING_BEND	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null
GPS_DATE	Date	8	GPS_DATE	null	null

FeatureClassName SYSTEM_VALVE_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATURE OWNER	WS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLE STATUS	WS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIAL SOURCE	WS_SPATIALSOURCE	GPS
DIAMETER	String	8	Diameter	WS_SYSVAL_DIAM	null
TYPE	String	25	TYPE	WS_SYSVAL_TYPE	null
VALVETYPE	String	10	VALVE TYPE	WS_SYSVAL_VALVETYPE	null
FUNCTION	String	25	FUNCTION	WS_SYSVAL_FUNCTION	null
GROUNDTYPE	String	25	GROUNDTYPE	WS_SYSVAL_GROUNDTYPE	null
WO_CAT_CODE	String	10	WO CAT CODE	null	1310A06
WO_CAT	String	25	WO CAT	null	System Valves
WATERTYPE	String	25	WATERTYPE	null	POTABLE
GPS_DATE	Date	8	GPS DATE	null	null
GPS_COMMENT	String	30	GPS COMMENT	null	null

FeatureClassName HYDRANT_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
HYDRANT_ID	String	25	HYDRANT_ID	null	HYD-VERIFY
FEATUREOWNER	String	25	Feature Owner	WS.FEATUREOWNER	null
LIFECYCLESTATUS	String	25	Lifecycle Status	WS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	Spatial Source	WS_SPATIALSOURCE_STD	GPS
BARRELDIAMETER	Double	8	Barrel Diameter	null	6
LARGENOZZLEDIAMETER	Double	8	Large Nozzle Diameter	null	4.5
SMALLNOZZLEDIAMETER	Double	8	Small Nozzle Diameter	null	2.5
OUTLETCONFIGURATION	Double	8	Outlet Configuration	null	3
SEATDIAMETER	Double	8	Seat Diameter	null	6
MANUFACTURER	String	25	Manufacturer	WS_HYD_MANUFACTURER	null
YEARMANUFACTURED	String	25	Manufacture Year	null	null
COLOR	String	25	Color	WS_HYD_COLOR	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	50	GPS_COMMENT	null	null

FeatureClassName WATER_MANHOLE_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	WS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WS_SPATIALSOURCE_STD	GPS
SUBTYPE	String	25	SUBTYPE	WS_SUBTYPE	null
ACCESSDIAMETER	String	8	ACCESSDIAMETER	WS_ACCESSDIAMETER	32
GROUNDTYPE	String	20	GROUNDTYPE	WS_GROUNDTYPE	null
COVERMATERIAL	String	10	COVERMATERIAL	WS_COVERMATERIAL	null
COVERTYPE	String	8	COVERTYPE	WS_COVERTYPE	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

FeatureClassName WATER_VAULT_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
SUBTYPE	String	20	SUBTYPE	null	null
FEATUREOWNER	String	20	FEATUREOWNER	WS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WS_SPATIALSOURCE_STD	GPS
SUB_TYPE	String	20	SUB_TYPE	WS_VAULT_SUB_TYPE	null
ADDRESS	String	50	ADDRESS	null	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	50	GPS_COMMENT	null	null

Domain:

WS_FEATUREOWNER

Description: TYPE OF SERVICE

Code	Name
COC	Chandler
GRIC	Gila River Indian Community
COG	Gilbert
GOULD	Gould
INTEL	Intel
COUNTY	Maricopa County
COM	Mesa
MICROCHIP	Microchip
MOTOROLA	Motorola
COP	Phoenix
PRIVATE	Private
SRP	SRP
SRVWUA	SRVWUA
COT	Tempe
UNKNOWN	UNKNOWN

Domain:

WS_SPATIALSOURCE_STD

Description: SPATIAL SOURCE

Code	Name
GPS	GPS

Domain:

WS_FITTING_TYPE

Description: FITTING TYPE

Code	Name
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING

CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
OTHER	OTHER
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

Domain:

WS_FITTING_BEND

Description: FITTING BEND

Code	Name
HORIZONTAL	HORIZONTAL
NONE	NONE
VERTICAL	VERTICAL

Domain:

WS_LIFECYCLESTATUS

Description: SYSTEM VALVE LIFECYCLE STATUS

Code	Name
ABANDONED	ABANDONED
ACTIVE	ACTIVE
FUTURE	FUTURE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN

Domain:

WS_SYSVAL_DIAM

Description: SYSTEM VALVE DIAMETER

Code	Name
	2
	3

4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48

Domain:

WS_SYSVAL_TYPE

Description: SYSTEM TYPE

Code	Name
ARV	ARV
BLOWOFF	BLOWOFF
STANDARD	STANDARD

Domain:

WS_SYSVAL_VALVETYPE

Description: SYSTEM VALVE TYPE

Code	Name
BALL	BALL
BUTTERFLY	BUTTERFLY
GATE	GATE
INSERTA	INSERTA
PIV	PIV
PLUG	PLUG
UNKNOWN	UNKNOWN

Domain:

WS_SYSVAL_FUNCTION

Description: SYSTEM VALVE FUNCTION

Code	Name
------	------

ARV	ARV
BACKFLOW	BACKFLOW
BYPASS	BYPASS
FDC	FDC
FIRELINE	FIRELINE
HYDRANT	HYDRANT
INLINE	INLINE
PUMPOUT	PUMPOUT
PUMPSTATION	PUMPSTATION
SERVICE	SERVICE
STUBOUT	STUBOUT
UNKNOWN	UNKNOWN
VAULT	VAULT
WPF	WPF
ZONE_SPLIT_VALVES	ZONE_SPLIT_VALVES

Domain:

WS_SYSVAL_GROUNDTYPE

Description: SYSTEM VALVE FUNCTION

Code	Name
ASPHALT	ASPHALT
CONCRETE	CONCRETE
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN

Domain:

WS_HYD_MANUFACTURER

Description: HYDRANT MANUFACTURER

Code	Name
AMERICANDARLING	AMERICANDARLING
AVK	AVK
CLOW	CLOW
DRESSER	DRESSER
GREENBERG	GREENBERG
KENNEDY	KENNEDY
MUELLER	MUELLER
PACIFIC	PACIFIC
UNKNOWN	UNKNOWN

WATEROUS	WATEROUS
----------	----------

Domain:

WS_MATERIAL

Description: MATERIAL

Code	Name
ABS	ABS
ACP	ACP
BRASS	BRASS
CIP	CIP
DIP	DIP
PCPP	PCPP
PE	PE
PVC	PVC
RCP	RCP
RPM	RPM
RTR	RTR
STL	STL
TRUSS	TRUSS
VCP	VCP

Domain:

WS_YES_NO

Description: YES OR NO

Code	Name
YES	YES
NO	NO

Domain:

WS_HYD_COLOR

Description: COLOR OF HYDRANT

Code	Name
BLACK/ALUMINUM	BLACK/ALUMINUM
BLACK/YELLOW	BLACK/YELLOW

GREEN	GREEN
RED	RED
RED/YELLOW	RED/YELLOW
UNKNOWN	UNKNOWN
WHITE	WHITE
YELLOW	YELLOW

Domain:

WS_SUBTYPE

Description: SUBTYPE OF MANHOLE

Code	Name
PUMPOUT STATION	PUMPOUT STATION
UNKNOWN	UNKNOWN
VALVE ACCESS	VALVE ACCESS

Domain:

WS_ACCESSDIAMETER

Description: ACCESS DIAMTER

Code	Name
22	22
24	24
26	26
28	28
30	30
32	32
38	38

Domain:

WS_GROUNDTYPE

Description: GROUND TYPE

Code	Name
ASPHALT	ASPHALT
CONCRETE	CONCRETE

DIRT	DIRT
UNKNOWN	UNKNOWN

Domain:

WS_COVERMATERIAL

Description: COVERMATERIAL

Code	Name
ALUMINUM	ALUMINUM
CASTIRON	CASTIRON
UNKNOWN	UNKNOWN

Domain:

WS_COVERTYPE

Description: COVER TYPE

Code	Name
BOLTED	BOLTED
SEALED	SEALED
UNKNOWN	UNKNOWN
VENTED	VENTED

Domain:

WS_VAULT_SUB_TYPE

Description: SUBTYPE OF VAULT

Code	Name
FIRELINE	FIRELINE
METER	METER
UNKNOWN	UNKNOWN
VALVE	VALVE

DATA DICTIONARY:
SEWER

FeatureClassName SEWER_MANHOLE_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	WW_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WW_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WW_SPATIALSOURCE	GPS
LID	String	20	LID	WW_MANHOLE_LID	null
TYPE	String	20	TYPE	null	null
COVER_MATERIAL	String	20	COVER_MATERIAL	null	null
COVER_HOLE	String	20	COVER_HOLE	null	null
COVER_SIZE	String	20	COVER_SIZE	null	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

FeatureClassName SEWER_CLEANOUT_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	WW_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WW_LIFECYCLESTATUS	null
LOCATIONDESCRIPTION	String	100	LOCATIONDESCRIPTION	null	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WW_SPATIALSOURCE	null
LID	String	20	LID	WW_SEWER_LID	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

FeatureClassName SEWER_FITTING_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	WW_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WW_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WW_SPATIALSOURCE	null
SIZE_	String	20	SIZE_	null	null
MATERIAL	String	20	MATERIAL	WW_MATERIAL	null
TYPE	String	30	TYPE	WW_FITTING_TYPE	null
BEND	String	20	BEND	WW_BEND	null
LOCATIONDESCRIPTION	String	100	LOCATIONDESCRIPTION	null	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

FeatureClassName SEWER_CONTROL_VALVE_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
TYPE	String	25	TYPE	null	null
FEATUREOWNER	String	20	FEATUREOWNER	null	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WW_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WW_SPATIALSOURCE	GPS
LOCATIONDESCRIPTION	String	100	LOCATIONDESCRIPTION	null	null
DIAMETER	String	8	DIAMETER	null	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

FeatureClassName SEWER_MISC_STRUCT_PNT
DatasetType FeatureClass

FieldName	Type	Length	AliasName	DomainName	DefaultValue
TYPE	String	25	TYPE	WW_TYPE	null
FEATUREOWNER	String	20	FEATUREOWNER	WW_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	WW_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	WW_SPATIALSOURCE	GPS
LOCATIONDESCRIPTION	String	100	LOCATIONDESCRIPTION	null	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

Domain: WW_FEATUREOWNER

Description: WASTEWATER FEATURE OWNER

Code	Name
COC	COC
PRIVATE	PRIVATE
CONTRACTOR	CONTRACTOR
TOG	TOG
UNKNOWN	UNKNOWN

Domain: WW_LIFECYCLESTATUS

Description: WASTEWATER FEATURE LIFECYCLESTATUS

Code	Name
ACTIVE	ACTIVE
FUTURE	FUTURE
PULLED	PULLED
INACTIVE	INACTIVE
UNKNOWN	UNKNOWN
ABANDONED	ABANDONED

Domain: WW_SPATIALSOURCE

Description: WASTEWATER FEATURE SPATIAL SOURCE

Code	Name
GPS	GPS

Domain: WW_TYPE

Description: WASTEWATER TYPE

Code	Name
DIVERSION	DIVERSION
JUNCTION	JUNCTION

Domain: WW_SEWER_LID

Description: WASTEWATER LID

Code	Name
OLD	OLD
NEW	NEW

Domain: WW_BEND

Description: WASTEWATER BEND

Code	Name
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL
NONE	NONE

Domain: WW_MATERIAL

Description: WASTEWATER MATERIAL

Code	Name
ACP	ACP
CONCRETE	CONCRETE
DIP	DIP
HDPE	HDPE
MJDIP	MJDIP
PVC	PVC
PVC LINED VCP	PVC LINED VCP
RCP ABS	RCP ABS
STEEL ENCASED VCP	STEEL ENCASED VCP
TLOCKLINE LINE RCP	TLOCKLINE LINE RCP
UNKNOWN	UNKNOWN
VCP	VCP

Domain: WW_FITTING_TYPE

Description: WASTEWATER FITTING_TYPE

Code	Name
ARV	ARV
FLOW METER	FLOW METER
NO_FLOW_POINT	NO_FLOW_POINT
OTHER	OTHER
OWNERSHIP_CHANGE	OWNERSHIP_CHANGE
PLUG	PLUG
REDUCER	REDUCER
UNKNOWN	UNKNOWN

DATA DICTIONARY:
RECLAIM

FeatureClassName	REC_FITTING_PNT
DatasetType	FeatureClass
Description	REC_FITTING_PNT
FeatureDataset	null
Tags	null
ShapeType	Point
FeatureType	Simple
AliasName	REC_FITTING_PNT
HasM	false
HasZ	false
SubtypeFieldName	null
DefaultSubtype	null
DSID	39

Fields					
FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	RWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	RWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	RWS_SPATIALSOURCE	null
MATERIAL	String	20	MATERIAL	WS_MATERIAL	null
DIAMETER1	String	8	DIAMETER1	RWS_FITTING_DIAMETER	null
DIAMETER2	String	8	DIAMETER2	RWS_FITTING_DIAMETER	null
TYPE	String	30	TYPE	RWS_FITTING_TYPE	null
BEND	String	20	BEND	WS_FITTING_BEND	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null
GPS_DATE	Date	8	GPS_DATE	null	null

FeatureClassName	REC_SYSTEM_VALVE_PNT
DatasetType	FeatureClass
Description	REC_SYSTEM_VALVE_PNT
FeatureDataset	null
Tags	null
ShapeType	Point
FeatureType	Simple
AliasName	REC_SYSTEM_VALVE_PNT
HasM	false
HasZ	false
SubtypeFieldName	null
DefaultSubtype	null
DSID	13

Fields						
FieldName	Type	Length	AliasName	DomainName	DefaultValue	
FEATUREOWNER	String	20	Feature Owner	WS_SYSVAL_FEATUREOWNER	null	
LIFECYCLESTATUS	String	20	Lifecycle Status	WS_SYSVAL_LIFECYCLESTATUS	null	
SPATIALSOURCE	String	20	Spatial Source	WS_SYSVAL_SPATIALSOURCE	null	
TYPE	String	25	TYPE	WS_SYSVAL_TYPE	null	
VALVETYPE	String	10	Valve Type	WS_SYSVAL_VALVETYPE	null	
FUNCTION	String	25	FUNCTION	WS_SYSVAL_FUNCTION	null	
DIAMETER	String	8	Diameter	WS_SYSVAL_DIAM	null	
GROUNDTYPE	String	25	GROUNDTYPE	RWS_GROUNDTYPE	null	
GPS_DATE	Date	8	GPS_DATE	null	null	
GPS_COMMENT	String	30	GPS_COMMENT	null	null	
WO_CAT_CODE	String	10	WO_CAT_CODE	null	6210A15	
WO_CAT	String	25	WO_CAT	null	System Valves	

FeatureClassName	REC_RECLAIM_MANHOLE_PNT
DatasetType	FeatureClass
Description	REC_RECLAIM_MANHOLE_PNT
FeatureDataset	null
Tags	null
ShapeType	Point

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	RWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	RWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	RWS_SPATIALSOURCE	null
ACCESSDIAMETER	String	8	ACCESSDIAMETER	RWS_ACCESSDIAMETER	null
GROUNDTYPE	String	20	GROUNDTYPE	RWS_GROUNDTYPE	null
COVERMATERIAL	String	10	COVERMATERIAL	RWS_COVERMATERIAL	null
COVERTYPE	String	8	COVERTYPE	RWS_COVERTYPE	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	30	GPS_COMMENT	null	null

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
FEATUREOWNER	String	20	FEATUREOWNER	RWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	20	LIFECYCLESTATUS	RWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	20	SPATIALSOURCE	RWS_SPATIALSOURCE	null
SUBTYPE	String	20	SUBTYPE	RWS_FITTING_SUBTYPE	null
GPS_DATE	Date	8	GPS_DATE	null	null
GPS_COMMENT	String	50	GPS_COMMENT	null	null

RWS_FEATUREOWNER

Description: Feature owner

Coded Values

Code	Name
COC	COC
COM	COM
INTEL	INTEL
OMG	OMG
PRIVATE	PRIVATE
SRVWUA	SRVWUA
TOG	TOG
UNKNOWN	UNKNOWN

RWS_LIFECYCLESTATUS

Description: Status of feature

Code	Description
ABANDONED	ABANDONED
ACTIVE	ACTIVE
FUTURE	FUTURE
INACTIVE	INACTIVE
PULLED	PULLED
UNKNOWN	UNKNOWN

RWS_SPATIALSOURCE

Description: Spatial Source of feature

Code	Description
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

RWS_MAIN_OR_SERVICE_MATERIAL

Description: Material of feature

Code	Description
AC	AC
CC	CC
CI	CI
DI	DI
PVC	PVC
UNKNOWN	UNKNOWN

RWS_SERVICE_MATERIAL

Description: Material of feature

Code	Description
AC	AC
CI	CI
COPPER	COPPER
DI	DI
PVC	PVC
UNKNOWN	UNKNOWN

RWS_MAIN_TYPE

Description: TYPE OF MAIN

Code	Description
DISTRIBUTION	DISTRIBUTION
PURGE LINE	PURGE LINE
RECHARGE WELL	RECHARGE WELL
STUBOUT	STUBOUT
TRANSMISSION	TRANSMISSION
UNKNOWN	UNKNOWN

RWS_FITTING_TYPE

Description: TYPE OF FITTING

Code	Description
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
MECHANICAL JOINT	MECHANICAL JOINT
OTHER	OTHER
RECHARGE WELL	RECHARGE WELL
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

RWS_SERVICE_LATERAL_TYPE

Description: TYPE OF SERVICE

Code	Description
AIR RELEASE	AIR RELEASE
COMMERCIAL	COMMERCIAL
INDUSTRIAL	INDUSTRIAL
LANDSCAPE	LANDSCAPE
MULTIFAMILY	MULTIFAMILY
RESIDENTIAL	RESIDENTIAL

RWS_SERVICE_LATERAL_DIAMETER

Description: TYPE OF SERVICE

Code	Description
0.63	0.63
0.75	0.75
1.0	1.0
1.25	1.25
1.5	1.5
2.0	2.0
2.5	2.5
3.0	3.0
4.0	4.0
6.0	6.0
8.0	8.0
12.0	12.0
UNKNOWN	UNKNOWN

RWS_MAIN_DIAMETER

Description: DIAMETER OF MAIN

Code	Description
4	4
6	6
8	8
10	10
12	12
15	15
16	16
18	18
20	20
24	24
30	30
36	36
42	42
48	48

RWS_FITTING_DIAMETER

Description: DIAMETER OF FITTING

Code	Description
0.63	0.63
0.75	0.75
1	1
1.25	1.25
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10
12	12
15	15
16	16
18	18
20	20
24	24
30	30
36	36
42	42
48	48

RWS_ACCESSDIAMETER

Description: ACCESS DIAMETER

Code	Description
22	22
24	24
26	26
28	28
30	30
30	30
28	28

RWS_GROUNDTYPE

Description: GROUND TYPE

Code	Description
ASPHALT	ASPHALT
CONCRETE	CONCRETE
DIRT	DIRT
UNKNOWN	UNKNOWN

RWS_COVERMATERIAL

Description: COVER MATERIAL

Code	Description
ALUMINUM	ALUMINUM
CASTIRON	CASTIRON
UNKNOWN	UNKNOWN

RWS_COVERTYPE

Description: COVER TYPE

Code	Description
BOLTED	BOLTED
SEALED	SEALED
UNKNOWN	UNKNOWN
VENTED	VENTED

RWS_COVERTYPE

Description: COVER TYPE

Code	Description
BOLTED	BOLTED
SEALED	SEALED
UNKNOWN	UNKNOWN
VENTED	VENTED

WS_SYSVAL_DIAM

Description: SYSTEM VALVE DIAMETER

Code	Name
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48

WS_SYSVAL_VALVETYPE

Description: SYSTEM VALVE TYPE

Code	Name
BALL	BALL
BUTTERFLY	BUTTERFLY
GATE	GATE
INSERTA	INSERTA
PIV	PIV
PLUG	PLUG
UNKNOWN	UNKNOWN

WS_FITTING_BEND

Description: FITTING BEND

Code	Name
HORIZONTAL	HORIZONTAL
NONE	NONE
VERTICAL	VERTICAL

WS_MATERIAL

Description: MATERIAL

Code	Name
ABS	ABS
ACP	ACP
BRASS	BRASS
CIP	CIP
DIP	DIP
PCPP	PCPP
PE	PE
PVC	PVC
RCP	RCP
RPM	RPM
RTR	RTR
STL	STL
TRUSS	TRUSS
VCP	VCP

DATA DICTIONARY:
STORM

FeatureClassName BUBBLERBOX_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
BUBBLERBOX_ID	String	20	BUBBLERBOX_ID	null	ST-BB-VERIFY
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	SPATIALSOURCE	SWS_SPATIALSOURCE	null
GRATE_OPENINGS_NUM	SmallInteger	2	GRATE_OPENINGS_NUM	SWS_GRATE_OPENINGS	null
GRATE_LENGTH	Double	8	GRATE_LENGTH	SWS_GRATE_LENGTH	null
GRATE_WIDTH	Double	8	GRATE_WIDTH	SWS_GRATE_WIDTH	null
DRYWELL_ASSOC	String	5	DRYWELL_ASSOC	GIS_BOOLEAN_YES_NO	null
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

FeatureClassName CATCHBASIN_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
CATCHBASIN_ID	String	20	CATCHBASIN_ID	null	ST-CB-VERIFY
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
CATCHBASIN_TYPE	String	25	CATCHBASIN_TYPE	SWS_CB_TYPE	null
CITY_EMBLEM	String	5	CITY_EMBLEM	GIS_BOOLEAN_YES_NO	null
ACCESS_OPENING_TYPE	String	25	ACCESS_OPENING_TYPE	SWS_CB_ACCESS_OPENING_TYPE	null
GRATE_LENGTH	Double	8	GRATE_LENGTH	SWS_GRATE_LENGTH	null
GRATE_WIDTH	Double	8	GRATE_WIDTH	SWS_GRATE_WIDTH	null
LID	String	5	LID	GIS_BOOLEAN_YES_NO	null
LID_TYPE	String	25	LID_TYPE	SWS_CB_LID_TYPE	null
DRYWELL_CONN	String	5	DRYWELL_CONN	GIS_BOOLEAN_YES_NO	null
OUTLET_CONN	String	5	OUTLET_CONN	GIS_BOOLEAN_YES_NO	null
BUBBLERBOX_CONN	String	5	BUBBLERBOX_CONN	GIS_BOOLEAN_YES_NO	null
BUBBLERBOX_DRYWELL_ASSOC	String	5	BUBBLERBOX_DRYWELL_ASSOC	GIS_BOOLEAN_YES_NO	null
LAKE_DRAIN	String	5	LAKE_DRAIN	GIS_BOOLEAN_YES_NO	null
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

FeatureClassName DRYWELL_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
DRYWELL_ID	String	20	DRYWELL_ID	null	ST-DW-VERIFY
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	SPATIALSOURCE	SWS_SPATIALSOURCE	null
FIELD_LOC	String	100	FIELD_LOC	SWS_DW_LOCATION	null
INSTALLER	String	30	INSTALLER	SWS_DW_INSTALLER	null
CHAMBER_TYPE	String	30	CHAMBER_TYPE	SWS_DW_CHAMBER_TYPE	null
LID_SIZE	SmallInteger	2	LID_SIZE	SWS_DW_LID_SIZE	null
LID_TYPE	String	25	LID_TYPE	SWS_DW_LID_TYPE	null
NUISANCE_LINE_ASSOC	String	5	NUISANCE_LINE_ASSOC	GIS_BOOLEAN_YES_NO	null
CONCRETE_PAD	String	5	CONCRETE_PAD	GIS_BOOLEAN_YES_NO	null
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

FeatureClassName INLET_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
INLET_ID	String	20	INLET_ID	null	ST-IN-VERIFY
CATCHBASIN_TYPE	String	25	CATCHBASIN_TYPE	SWS_CB_TYPE	null
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	SPATIALSOURCE	SWS_SPATIALSOURCE	null
FIELD_LOC	String	100	FIELD_LOC	SWS_FIELD_LOC	null
GRATE_ASSOC	String	25	GRATE_ASSOC	GIS_BOOLEAN_YES_NO	null
GRATE_LENGTH	Double	8	GRATE_LENGTH	SWS_GRATE_LENGTH	null
GRATE_WIDTH	Double	8	GRATE_WIDTH	SWS_GRATE_WIDTH	null
INLET_PIPE_DIAM	SmallInteger	2	INLET_PIPE_DIAM	SWS_INLET_PIPE_DIAM	null
INLET_NUMBER	SmallInteger	2	INLET_NUMBER	null	null
TRASHRACK_ASSOC	String	5	TRASHRACK_ASSOC	GIS_BOOLEAN_YES_NO	null
TRASH_LENGTH	Double	8	TRASH_LENGTH	null	null
TRASH_WIDTH	Double	8	TRASH_WIDTH	null	null
NUISANCE_LINE_ASSOC	String	5	NUISANCE_LINE_ASSOC	GIS_BOOLEAN_YES_NO	null
BUBBLER_BOX_DRYWELL_ASSOC	String	5	BUBBLER_BOX_DRYWELL_ASSOC	GIS_BOOLEAN_YES_NO	null
HEADWALLASSOC	String	5	HEADWALLASSOC	GIS_BOOLEAN_YES_NO	null
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

FeatureClassName OUTLET_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
OUTLET_ID	String	20	OUTLET_ID	null	ST-OUT-VERIFY
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	SPATIALSOURCE	SWS_SPATIALSOURCE	null
GRATE_ASSOC	String	25	GRATE_ASSOC	GIS_BOOLEAN_YES_NO	null
GRATE_LENGTH	Double	8	GRATE_LENGTH	SWS_GRATE_LENGTH	null
GRATE_WIDTH	Double	8	GRATE_WIDTH	SWS_GRATE_WIDTH	null
INLET_PIPE_DIAM	SmallInteger	2	INLET_PIPE_DIAM	SWS_INLET_PIPE_DIAM	null
INLET_NUMBER	SmallInteger	2	INLET_NUMBER	SWS_INLET_NUMBER	null
TRASHRACK_ASSOC	String	5	TRASHRACK_ASSOC	GIS_BOOLEAN_YES_NO	null
TRASH_LENGTH	Double	8	TRASH_LENGTH	null	null
TRASH_WIDTH	Double	8	TRASH_WIDTH	null	null
NUISANCE_LINE_ASSOC	String	5	NUISANCE_LINE_ASSOC	GIS_BOOLEAN_YES_NO	null
BUBBLER_BOX_DRYWELL_ASSOC	String	5	BUBBLER_BOX_DRYWELL_ASSOC	GIS_BOOLEAN_YES_NO	null
HEADWALLASSOC	String	5	HEADWALLASSOC	GIS_BOOLEAN_YES_NO	null
ADOTOUTFLOW	String	5	ADOTOUTFLOW	GIS_BOOLEAN_YES_NO	NO
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

FeatureClassName SCUPPER_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
SCUPPER_ID	String	20	SCUPPER_ID	null	ST-SCP-VERIFY
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	SPATIALSOURCE	SWS_SPATIALSOURCE	null
CITY_EMBLEM	String	5	CITY_EMBLEM	GIS_BOOLEAN_YES_NO	null
NUMBER_OPENINGS	SmallInteger	2	NUMBER_OPENINGS	null	null
WIDTH	Double	8	WIDTH	null	null
SPILLWAY_ASSOC	String	25	SPILLWAY_ASSOC	GIS_BOOLEAN_YES_NO	null
HEADWALL_ASSOC	String	5	HEADWALL_ASSOC	GIS_BOOLEAN_YES_NO	null
NUISANCE_LINE_ASSOC	String	5	NUISANCE_LINE_ASSOC	GIS_BOOLEAN_YES_NO	null
BUBBLERBOX_ASSOC	String	5	BUBBLERBOX_ASSOC	GIS_BOOLEAN_YES_NO	null
BUBBLER_BOX_DRYWELL_ASSOC	String	5	BUBBLER_BOX_DRYWELL_ASSOC	GIS_BOOLEAN_YES_NO	null
LAKE_DRAIN	String	5	LAKE_DRAIN	GIS_BOOLEAN_YES_NO	null
RIPRAP	String	25	RIPRAP	GIS_BOOLEAN_YES_NO	null
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

FeatureClassName STORM_DRAIN_MANHOLE_PNT
DatasetType FeatureClass

Fields

FieldName	Type	Length	AliasName	DomainName	DefaultValue
STORMDRAIN_ID	String	20	STORMDRAIN_ID	null	ST-MH-VERIFY
FEATUREOWNER	String	25	FEATUREOWNER	SWS_FEATUREOWNER	null
LIFECYCLESTATUS	String	25	LIFECYCLESTATUS	SWS_LIFECYCLESTATUS	null
SPATIALSOURCE	String	25	SPATIALSOURCE	SWS_SPATIALSOURCE	null
STRUCTURE_TYPE	SmallInteger	2	STRUCTURE_TYPE	SWS_STRUCTURE_TYPE	null
CHANDLER_NAME	String	5	CHANDLER_NAME	GIS_BOOLEAN_YES_NO	null
DIAMETER	SmallInteger	2	DIAMETER	SWS_SDMH_SIZE	null
VENT_HOLE	String	30	VENT_HOLE	GIS_BOOLEAN_YES_NO	null
ACCESS_OPENING_TYPE	String	25	ACCESS_OPENING_TYPE	SWS_SDMH_ACCESS_OPENING_TYPE	null
LID_TYPE	String	30	LID_TYPE	SWS_SDMH_TYPE	null
LID_TEXT	String	30	LID_TEXT	SWS_SDMH_LID_TEXT	null
COMMENTS	String	255	COMMENTS	null	null
COLLECTED_DATE	Date	8	COLLECTED_DATE	null	null

Domain Name	Current Description
GIS_BOOLEAN_YES_NO	GIS Boolean Yes or No
GIS_COLLECTOR_ID	GPS Crew Employee IDs
SWS_DW_CHAMBER_TYPE	Drywell chamber type
SWS_DW_DEPT_RESP	Department responsible for DryWell Maint
SWS_DW_INSTALLER	DryWell installers
SWS_DW_LID_SIZE	Standard size of Drywell lid
SWS_DW_LID_TYPE	Drywell lid type
SWS_DW_LOCATION	Drywell location
SWS_EP_DIAM	Standard sizes of Equalizer Pipe diameters
SWS_EP_MATERIAL	Equalizer Pipe material
SWS_FEATUREOWNER	Storm feature ownership
SWS_GRATE_LENGTH	Denotes the length of a storm water grate
SWS_GRATE_WIDTH	Denotes the width of a storm water grate
SWS_INLET_NUMBER	Number of Inlets
SWS_INLET_PIPE_DIAM	Inlet pipe diameter
SWS_LIFECYCLESTATUS	Denotes the Lifecyclestatus for Storm features
SWS_RB_MAINT_LIST	Retention Basin maintainer
SWS_RB_TYPE	Retention Basin Type
SWS_SDMH_ACCESS_OPENING_TYPE	Storm Drain Manhole Access Opening type
SWS_SDMH_LID_TEXT	Storm Drain Manhole Lid Text
SWS_SDMH_SIZE	Standard size of Storm Drain Manhole
SWS_SDMH_TYPE	Storm Drain Manhole Type
SWS_SEPARATOR_LID_TYPE	Denotes the type of separator lid
SWS_SEPARATOR_TYPE	Denotes the type of separator
SWS_SPATIALSOURCE	Denotes the Spatial Source of Storm features
SWS_SPL_WALL_MATERIAL	Denotes Spillway Wall Material
SWS_STRUCTURE_TYPE	Type of structure for GBA

APPENDIX D

Geotechnical Report

**Roadway Geotechnical Engineering Report
Chandler Heights Road Improvements
Gilbert Road to Val Vista Drive
Chandler, Arizona
City Project No. ST1804.401
Federal Project No. CHN-0(221)A
ADOT TRACS No. SS914 01C
RAMM Project No. G25046**



For:
Kimley-Horn and Associates, Inc.
7740 North 16th Street, Suite 300
Phoenix, Arizona 85020



By:
Ricker • Atkinson • McBee • Morman & Associates, Inc.
2105 South Hardy Drive, Suite 13
Tempe, Arizona 85282



RICKER • ATKINSON • McBEE • MORMAN & ASSOCIATES, INC.

Geotechnical Engineering • Construction Materials Testing

R·A·M·M

Kimley-Horn and Associates, Inc.
7740 North 16th Street, Suite 300
Phoenix, Arizona 85020

August 5, 2020

Attention: Chris Woolery, P.E. / Jason Fenner, P.E.

Subject: Roadway Geotechnical Engineering Report
Chandler Heights Road Improvements
Gilbert Road to Val Vista Drive
Chandler, Arizona
City Project No. ST1804.401
Federal Project No. CHN-0(221)A
ADOT TRACS NO. SS 914 01C

RAMM Project No. G25046

Attached to this letter is the Roadway Geotechnical Engineering Report for the proposed Chandler Heights Road Improvements which will extend from Gilbert Road to Val Vista Drive in Chandler, Arizona.

The proposed Chandler Heights Road Improvements project includes widening Chandler Heights Road from the east side of Gilbert Road (Sta 221 + 85.43) east to about the west side of Val Vista Drive (Sta 324 + 26.79). The results of our field explorations; laboratory testing; and engineering analysis, evaluation and recommendations are presented in the report.

Chandler Heights Road is classified as a major arterial road. The proposed Chandler Heights Road Improvements project includes widening a majority of the road from just west of White Place (Sta 258 + 24.64) to the east side of Lindsay Road (Sta 272 + 65.33), improving the median from Sta 272 + 65.33 east to the center line of Gemstone Drive (Sta 285 + 24.16), and widening the eastbound lanes from just west of 148th Street (Sta 295 + 11.29) east to the end of the project (Sta 324 + 26.79). The westbound lanes from 148th Street to Val Vista Drive will be improved by others and will be surfaced sealed as part of this project. The remainder of the existing pavements will be milled and overlaid.

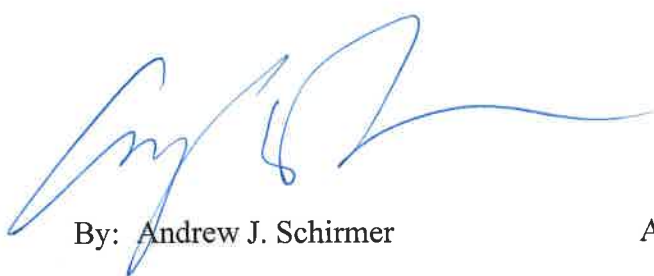
A new RWCD irrigation pipe will be installed east of White Place (Sta 259 + 28) east to the Chandler Pathways development (Sta 266 + 74). East from Sta 295 + 11 a new 24-inch RGRCPC storm drainpipe and a new 18-inch private irrigation pipe will be installed to depths of 10 to 15

feet for the storm drain and about 5 feet deep for the irrigation pipe. The irrigation pipe will extend east to about Sta 298 + 40 and will be connected to an existing north-south irrigation pipe at about Sta 298 + 02. The storm drainpipe extends east to Sta 306 + 50. The storm drainpipe catch basins will be installed at five locations along the south outside curb and gutters. The catch basins will drain north to the storm drainpipe which drains north across Chandler Heights Road to a new drywell system in the existing north side retention basin of City of Chandler Veterans Oasis Park. Chandler Heights Road is a major arterial. New retention basins At Sta 262 + 00 and Sta 314 + 00 will be feed by a catch basins on the north or south, respectively, curb and gutters.

This report was prepared based on project and site data available at this time and was prepared in a manner and to the standards of the local geotechnical engineering practice. Our services did not include evaluations for the presence of hazardous materials; for concrete durability with respect to on-site soils; for concrete durability and corrosion potential with respect site use water sources; for area subsidence resulting from groundwater withdrawal; or for other geologic hazards.

If you have any questions, please do not hesitate to call.

Respectfully submitted,
RICKER • ATKINSON • McBEE • MORMAN & ASSOCIATES, INC.



By: Andrew J. Schirmer

AND



Kenneth L. Ricker, P.E.

/kes

Copies to: Addressee (chris.woolery@kimley-horn.com) / (jason.fenner@kimley-horn.com)

TABLE OF CONTENTS

REPORT	<u>PAGE</u>
Introduction.....	1
Proposed Construction.....	1
Site Conditions.....	2
Field Explorations	
Test Boring.....	3
Existing Pavement Sections.....	4
Laboratory Analysis.....	4
Subsurface Conditions.....	4
Pavement Design.....	5
Storm Drain and Retention Basin.....	7
Site Development Recommendations	
Concrete Slab-On-Grade Sidewalk Support.....	7
Surface Drainage.....	8
Excavatability.....	8
Workability.....	8
Earthwork Factors.....	8
Materials Suitability and Requirements	
Site Materials.....	9
Imported Soils.....	9
Base Material.....	9
Asphalt Concrete Pavement.....	10
Pipe Bedding.....	10
Site Preparation and Grading Procedures	
Pavement Areas.....	10
APPENDIX A - FIELD EXPLORATION	
Site Plans.....	A1
Soil Legend.....	A2
Test Boring Logs.....	A3



APPENDIX B - LABORATORY ANALYSIS

Direct Shear	B1
Percent Passing No. 200 Sieve, Atterberg Limits, Percent Expansion.....	B9
Percent Expansion.....	B10
Maximum Density-Optimum Moisture Determination	B11

APPENDIX C - DESIGN CHARTS PARTS OF CITY OF CHANDLER STANDARD
DETAILS AND SPECIFICATIONS (MAY 2018)

**ROADWAY
GEOTECHNICAL
REPORT**



R·A·M·M

INTRODUCTION

This report presents the results of our roadway geotechnical engineering services for the proposed Chandler Heights Road Improvements, Gilbert Road to Val Vista Drive, located in Chandler, Arizona. The scope of our services included performing a field exploration program, laboratory analysis and geotechnical engineering evaluation, analysis and recommendations. The geotechnical recommendations presented herein include those for rehabilitated and new pavements, anticipated excavation conditions, site development, and material use and requirements. We would be pleased to discuss with you any additional recommendations you may require. In addition, we are available to review project specifications and plans for conformance with our recommendations at no charge to you.

This firm should be notified for additional evaluation and recommendations if the project design parameters (locations, depths, alignments, etc.) are changed, and/or where site use or conditions encountered during construction differ from those presented herein.

PROPOSED CONSTRUCTION

The proposed Chandler Heights Road Improvements project includes widening Chandler Heights Road from the east side of Gilbert Road (Sta 221 + 85.43) east to about the west side of Val Vista Drive (Sta 324 + 26.79). The results of our field explorations; laboratory testing; and engineering analysis, evaluation and recommendations are presented in the report.

Chandler Heights Road is classified as a major arterial road. The proposed Chandler Heights Road Improvements project includes widening a majority of the road from just west of White Place (Sta 258 + 24.64) to the east side of Lindsay Road (Sta 272 + 65.33), improving the median from Sta 272 + 65.33 east to the center line of Gemstone Drive (Sta 285 + 24.16), and widening the eastbound lanes from just west of 148th Street (Sta 295 + 11.29) east to the end of the project (Sta 324 + 26.79). The westbound lanes from 148th Street to Val Vista Drive will be improved by others and will be surfaced sealed as part of this project. The remainder of the existing pavements will be milled and overlaid.

A new RWCD irrigation pipe will be installed east of White Place (Sta 259 + 28) east to the Chandler Pathways development (Sta 266 + 74). East from Sta 295 + 11 a new 24-inch RGRCP storm drainpipe and a new 18-inch private irrigation pipe will be installed to depths of 10 to 15 feet for the storm drain and about 5 feet deep for the irrigation pipe. The irrigation pipe will extend

east to about Sta 298 + 40 and will be connected to an existing north-south irrigation pipe at about Sta 298 + 02. The storm drainpipe extends east to Sta 306 + 50. The storm drainpipe catch basins will be installed at five locations along the south outside curb and gutters. The catch basins will drain north to the storm drainpipe which drains north across Chandler Heights Road to a new drywell system in the existing north side retention basin of City of Chandler Veterans Oasis Park. Chandler Heights Road is a major arterial. New retention basins At Sta 262 + 00 and Sta 314 + 00 will be feed by a catch basins on the north or south, respectively, curb and gutters.

SITE CONDITIONS

Chandler Heights Road between Gilbert Road and White Place has two lanes in each direction with bike lanes, raised medians and various right and left turn lanes. Pavement in this section has been seal-coated and was in very good condition with localized small patches of surface spall and little cold joint expansion.

Chandler Heights Road between White Place and Lindsay Road has one lane in each direction with a painted, at grade median, curb and gutter, an eastbound bike lane and an open agricultural irrigation ditch off the westbound dirt shoulder. Eastbound pavement has been seal-coated and is in very good condition with localized surface spall and limited cold joint expansion. Westbound pavement was in moderate condition with mild alligator cracking, little spalling and an occasional pothole. Crack sealant has been applied to the larger cracks along the westbound section.

The Lindsay Road intersection was in moderate condition, containing numerous patched pavement cuts, moderate wear and light to moderate block cracking. Chandler Heights Road between Lindsay Road and Gemstone Drive/146th Street has one lane in each direction with full width paving, a painted at grade median, curb and gutter on both sides, an eastbound bike lane and a striped, paved westbound shoulder. Pavement within this section was in good condition with light wear, limited cold joint expansion, light longitudinal cracking, occasional transverse cracking and occasional small potholing.

Chandler Heights Road between Gemstone Drive/146th Street and 148th Street has one lane in each direction with full width paving, raised medians, curb and gutter on both sides, and striped, paved shoulders. Pavement within this section was in good condition with light wear, open cold joints and light longitudinal cracking. The eastbound lane, starting at the east end of the raised median was newer pavement and was in good condition with light wear and limited cold joint expansion.

Chandler Heights Road between 148th Street and Val Vista Drive is one lane in each direction without a median and with dirt shoulders on both sides. For 950 feet west of Val Vista Drive, curb and gutter exists on the westbound edge of pavement. Pavement in this area was in very good condition with light wear and localized cold joint expansion.

FIELD EXPLORATIONS

Test Borings:

Subsurface conditions for the use in the design of the pavements and installation of the new utility lines were explored by drilling Test Borings 1, 2, 7 and 8 to depths of 11.0 feet and Test Borings 3, 4, 5 and 6 to the depths of 16.0 feet, along the existing road. The existing pavement was cored with a diamond impregnated, single core barrel and the base material and subgrade soils were drilled and sampled at Test Borings C1 to C11 to depths of 5.0 feet. The locations of the test borings are shown on the Site Plans in Appendix A. The test borings and soil below the cores were drilled with a CME 45 drill rig using seven-inch diameter, hollow-stem augers. The drilling equipment and crew were provided by Wildcat Drilling, Inc. The test boring locations were determined in the field by our staff geologist. During the field explorations, representative undisturbed and disturbed samples were obtained, the field explorations logged and soils field-classified by our field technician, who also directed the drill crew. Relatively undisturbed samples of the subsoils were obtained by driving a 3-inch diameter, ring-lined, open-end sampler into the soil with a 140-pound hammer dropping 30 inches. The results of our field explorations are presented in the Test Boring Logs in Appendix A.

LABORATORY ANALYSIS

Representative samples obtained during the field explorations were subjected to the following tests in our laboratory.

<u>Type of Test</u>	<u>Type of Sample</u>	<u>Number of Samples Tested</u>
Direct Shear	Undisturbed	8
Sieve Analysis & Plasticity Index	Representative	27
Swell	Remolded	5
Standard Proctor (ASTM D698)	Representative	8
Moisture Content/Dry Density *	Undisturbed	46
Moisture Content*	Disturbed ring	1

* Reported in the test boring logs

The results of the laboratory analysis are presented in Appendix B.

EXISTING PAVEMENT SECTIONS

The following test borings were drilled through the roadway pavement sections and the subgrade soils were overlain by the following:

<u>Existing Pavement Thickness</u>		
<u>Test Boring</u>	<u>AC Thickness (inches)</u>	<u>Aggregate Base Thickness (inches)</u>
3	4 ³ / ₄	None
4	4 ¹ / ₂	None
5	3 ³ / ₄	¹ / ₂
6	4 ¹ / ₂	4
7	5	4 ¹ / ₂
8	4	3
C1	5	None
C2	5 ³ / ₄	7
C3	4 ¹ / ₄	6 ¹ / ₂
C4	3 ⁵ / ₈	10
C5	4 ¹ / ₂	8
C6	1 ³ / ₄	8
C7	4 ³ / ₈	5 ¹ / ₂
C8	4 ¹ / ₂	5
C9	4 ¹ / ₄	5 ¹ / ₂
C10	4	6 ¹ / ₂
C11	3 ¹ / ₂	14 ¹ / ₂

SUBSURFACE CONDITIONS

The results of the test borings are presented in Appendix A in the Test Boring Logs. Along the alignment of the proposed Chandler Heights Road Improvements, the near surface and underlying subgrade soil were somewhat variable. Subgrade soils were composed of medium dense clayey sand some to with gravel in Test Borings 1, 2, 3, 5 and 7 to depths of 5.0 to 11.0 feet. In Test Borings 3 and 5 these surface soils were overlain by 1.5 to 4.5 feet of fill composed of loose clayey sand and dense silty sand and were underlain by medium dense sand with some silt and gravel which extends to the remaining depth of exploration (16.0 feet). In Test Borings 2 and 7 the surface soils were underlain by medium dense clayey sand – silty sand, some to with gravel to a depth of 10.0 feet in Test Boring 2 and 11.0 feet (maximum depth of exploration) in Test Boring 7. In Test Boring 2, these soils were underlain by medium dense sand, some silt which extended to the remaining depth of exploration (11.0 feet). In Test Borings 4 and 8, the surface soils were

medium dense clayey sand – silty sand which extended to depths of 12.0 and 4.0 feet, respectively, where medium dense clayey sand, some to with gravel was encountered and extended to depths of 16.0 and 11.0 feet, respectively (full depths of exploration). In Test Boring 6, the surface soil encountered was clayey sand/sandy clay with some gravel which extended to a depth of 9.5 feet and was underlain by medium dense clayey sand – silty sand which extended to the full depth of exploration of 16.0 feet.

Test Borings C1 to C11 extend to a depth of 6.0 feet (full depth of exploration). Test Borings C2, C3, C4, C7 and C11 encountered medium dense clayey sand, some to with gravel, Test Borings C6 and C8 to C10 encountered medium dense/stiff to very stiff clayey sand/sandy clay, Test Boring C1 encountered dense gravel, with sand, some silt, and in Test Boring C5 the surface soil was medium dense clayey sand – silty sand and some to with gravel.

Soil moisture contents were described as nearly dry to slightly damp in the near surface soils. No groundwater was observed in the test borings during the field exploration.

PAVEMENT DESIGN

The design of the pavement widening and reconstruction was based on the criteria presented in the City of Chandler Standard Details and Specifications (January 2020) for Major Arterial Street, Typical Cross Section Detail No.s C-203 and C-204 and using percent passing the No. 200 sieve and Plasticity Index of the subgrade soil, to determine the base course thickness per Major and Minor Arterial Detail No. C-239. Based on these design procedures the new pavement section for Chandler Heights Road should consist of 5.0 inches of asphalt concrete (2.0 inches of A12.5 EVAC Surface Course on 3.0 inches of A19 base course with a tack coat between the lifts) on 7.0 inches of aggregate base course (MAG Specifications Sections 310 and 702).

All new pavement sections should be constructed in accordance with MAG specifications as modified by the City of Chandler including rehabilitating the existing pavement sections which are in fair condition.

Based on the condition of the existing pavement and the moisture contents of the undisturbed samples presented in Test Borings C1 to C9, moderate to severe subgrade pumping may occur during the removal of the existing pavement section. If moderate to severe pumping is encountered, during removal of the existing pavement, the existing pavement section and

underlying subgrade should be removed to a depth of 14 inches below the top of the new finished pavement elevation and a layer of geogrid be placed on the exposed subgrade. The geogrid should conform to Table 796-4, Type 1 of MAG Specification (2015). All joints in the geogrid should be overlapped at least one foot and staked to the subgrade. The aggregate base (AB) should then be placed on the geogrid/fabric by end-dumping onto an exposed edge of the geogrid and spread in one lift which will be at least 9 inches thick after compaction. The end-dumped material should be spread with a light-duty front end loader or dozer. At no time shall any equipment be allowed on the geogrid which has less than 6 inches of aggregate base between the equipment wheels or tracks and the geogrid. After placement and compaction of the aggregate base, the above 5.0 thick asphalt concrete section should be placed in two lifts.

The above sections are minimal and should function well with periodic maintenance (seal coats, overlays or patching) and where proper drainage is provided and maintained. Should moisture penetrate the subgrade soils or ponding occur on or adjacent to the pavement section, increased maintenance and a significant reduction in pavement life could occur. Therefore, good surface drainage on and adjacent to the pavement is essential for achieving the desired pavement life.

<u>Test Boring</u>	<u>Depth (feet)</u>	<u>PI</u>	<u>Percent -200</u>	<u>AC (inches)</u>	<u>AB (inches)</u>	<u>Existing Structural Number</u>
1	0-5	12	36	-	-	-
2	0-5	16	44	-	-	-
3	0-5	10	47	4¾	-	2.0
4	0-5	5	32	4½	-	1.89
5	0-5	9	35	3¾	½	1.64
6	0-5	12	43	4½	4	2.37
7	0-5	8	39	5	4½	2.64
8	0-5	6	33	4	3	2.04
C1	0.5-5	NP	11	5	-	2.1
C2	1.5-5	10	32	5¾	7	3.26
C3	2-3	10	30	4¾	6¼	2.73
C4	1.5-5	12	32	3¾	10	2.62
C5	1.5-5	4	32	4¼	8	2.75
C6	1.5-5	12	44	1¾	8	1.7
C7	1-5	8	30	4¾	5½	2.5

<u>Test</u>	<u>Depth</u>		<u>Percent</u>	<u>AC</u>	<u>AB</u>	<u>Existing</u>
<u>Boring</u>	<u>(feet)</u>	<u>PI</u>	<u>-200</u>	<u>(inches)</u>	<u>(inches)</u>	<u>Structural</u>
						<u>Number</u>
C9	1.5-5	23	37	4¼	5½	2.45
C10	1.5-5	14	44	4	6½	2.46
C11	1.5-5	8	32	3½	14½	3.21

Storm Drain and Retention Basin:

As part of this project, a storm drain system will be installed along with the eastbound lanes from Sta. 295 + 11 to Sta. 306 +50. The storm drainpipes will be 24-inch diameter rubber gasket reinforced concrete pipe (RGRCP) except for the storm drain from Sta. 295 + 50 leading to the new drywell units which will be an 18-inch diameter RGRCP. Excavation depths along the storm drain lines and manholes will range from 10.0 feet to 15.0 feet.

Two new retention basins will be constructed outside of the right-of-way lines on the north and south sides of Chandler Heights Road at Sta. 262 + 00 (north) and Sta. 314 + 00 (south), will have a paved discharge channel extending from Chandler Heights Road to the bottom of the basin and will have a drywell near the center of each basin, opposite from the discharge point.

SITE DEVELOPMENT RECOMMENDATION:

Concrete Slab-On-Grade Sidewalk Support:

The near surface soils are variably non-plastic to high in plasticity and when compacted and wetted, exhibit low to high swell potentials. Six-inch exterior slabs should be founded on a prepared subgrade. The subgrade soils, when recompacted to 88 to 92 percent compaction limited, will provide adequate support for concrete slabs-on-grade, provided these soils are placed and compacted at moisture contents at optimum to 3 percent above optimum and maintained at these moisture conditions until concrete placement. In addition, all slab edges should be constructed with turndowns that extend at least 6 inches below the bottom of the slab. All joints in the slabs should be sealed. Even with these conditions, slab movement, as the result of expansive soils, may occur. All unreinforced slabs-on-grade should be jointed as per ACI (American Concrete Institute) or PCA (Portland Cement Association) guidelines.

Surface Drainage:

Most soils will undergo some degree of volume change as the result of wetting. The degree of volume change will depend on the type of soil, swell potential, natural soils structure or degree of compaction (if a fill). Therefore, good site and surface drainage away from these elements is required. In addition, water should not be allowed to pond within 5 feet of the pavement edges or other elements which are sensitive to movements.

Excavatability:

The excavatability of site materials is difficult to evaluate based only on the exploration equipment used during this design report. Therefore, we recommend that the contractor evaluate the excavatability of site materials by performing test excavations with the size and type of equipment the contractor plans on using at the site. For design purposes the following paragraph presents our best analysis as to the excavatability of site soils.

The near surface soils to depths of 5 to 15 feet can probably be removed with conventional excavating equipment. Deeper excavations may be slower and more difficult to accomplish, and caving/collapse may occur within the granular, non-plastic to low plasticity soil layers. OSHA requires all excavations over five feet in depth, in which personnel are to enter, be either braced or sloped in accordance with OSHA regulations.

Workability:

Wetting site soils such that moisture contents are at or above optimum could result in some to extensive soil pumping under dynamic loadings such as heavy construction equipment driving over the area. In flexible pavement areas where pumping has occurred, the area should be allowed to dry until soils are workable without pumping or the wetted areas removed and replaced with drier site soils.

Earthwork Factors:

Earthwork losses due to ground height losses and shrinkage were estimated based on past experience in the area and the laboratory test data. The materials encountered at the site were variably medium dense to dense and stiff to very stiff. The estimated ground height losses due to subgrade compaction are as follows for previously graded areas:

<u>Ground Height Loss *</u>	
<u>Paved Areas</u>	<u>Unpaved Areas</u>
½" to 1"	1" to 2"

* Based on compaction to 95 percent of estimated and laboratory maximum dry density (ASTM D698), dry densities obtained from ring samples of fill and in-situ soils, and achieving a 10-inch deep compacted zone without stripping natural surface zones.

The estimated shrinkage losses from cut to fill zones are as follows for naturally occurring soils.

<u>Estimated Percent Shrinkage *</u>	
<u>Old Pavement Areas</u>	<u>Unpaved Areas</u>
5% to 10%	10% to 20%

* Based on compaction to 95 percent of estimated and laboratory maximum dry density (ASTM D698), dry densities obtained from ring samples of fill and in-situ soils from the near surface zone and local experience.

These estimates do not include compaction to greater depths than assumed, losses due to wind or wastage, overexcavation, etc.

MATERIALS SUITABILITY AND REQUIREMENTS

Site Materials:

The near surface soils may be used as fill and backfills in trench and pavement areas, provided these soils are free of organic materials, debris and rubble. Existing asphalt concrete pavements which are milled, pulverized and/or reduced to suitable size may be used in fill.

Imported Soils:

Fill required beyond that available from site sources for use as backfills, should be imported soils meeting the following requirements:

- Maximum Particle Size-----4 inches
- The percent passing No. 200 Sieve and plasticity index for the imported soils when plotted on the City of Chandler Detail No. C-239 should be within the base thickness zone of 9 inches.

Base Material:

Base material used below pavement should conform to the requirements of Maricopa Association of Governments (MAG) Specifications for aggregate base (Section 702) as modified by the City of Chandler. Old pavement materials (AC and AB) which have been milled or pulverized may be

reused as fill and as aggregate base if the processed material meets MAG Section 702 for aggregate base.

Asphalt Concrete Pavement:

Asphalt concrete pavement materials should conform to the requirements of EVAC Specifications and MAG as adopted by the City of Chandler.

Pipe Bedding:

Material used as pipe bedding should be granular soils which meet the requirements of MAG Specifications as modified by the City of Chandler.

SITE PREPARATION AND GRADING PROCEDURES

Pavement Areas:

Recommendations presented in the previous sections of this report are based upon the following site preparation and grading procedures. Therefore, all earthwork should be accomplished with observation and testing by a qualified technician under the direction of a registered geotechnical/materials engineer. The following apply in pavement areas.

1. Clear and grub the site by removing and disposing of all vegetation, any trash and debris, and any rubble and remnants of former developments.
2. Strip the site of all existing fill zones and unstable soils. During stripping observe the surface for evidence of buried debris, vegetation or disturbed materials which will require additional removal. Areas steeper than 5H to IV should be benched and any depressions widened to accommodate compaction equipment.
3. Prepare the ground surface in at-grade areas, in fill areas and in areas cut to grade by scarifying, moisture conditioning and compacting the exposed surface soils to a depth of 10 inches.
4. Moisture condition and place all fill and backfill materials required to achieve specified grades. Fill materials should be moisture conditioned, placed and compacted in horizontal lifts of thicknesses compatible with the compaction equipment being used.

5. Compact subgrade, fill, backfill, subbase fill or base material to the following minimum percent compaction of the ASTM D698 maximum dry density in each lift:

<u>Material</u>	<u>Minimum Percent Compaction</u>
Soil:	
Sidewalk and curb/gutter City of Chandler Details	
Below pavement sections.....	95
Base Material:	
Below pavement sections.....	100

6. Moisture content of backfill at the time of compaction should be:

<u>Type</u>	<u>Area of Use</u>	<u>Moisture content</u>
On-site or Import	Trench	Optimum plus or minus 3%
On-site or Import	Pavements*	2% below optimum or lower
Base Material	Pavements	Optimum plus or minus 3%

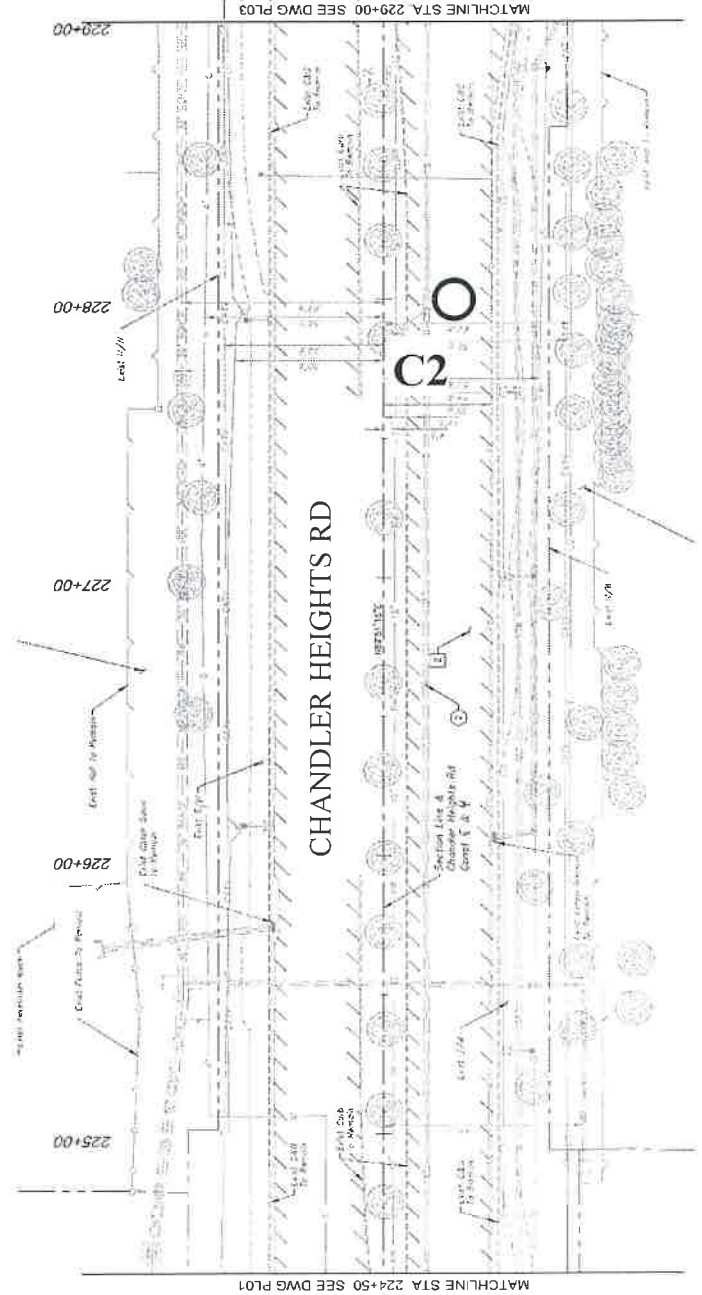
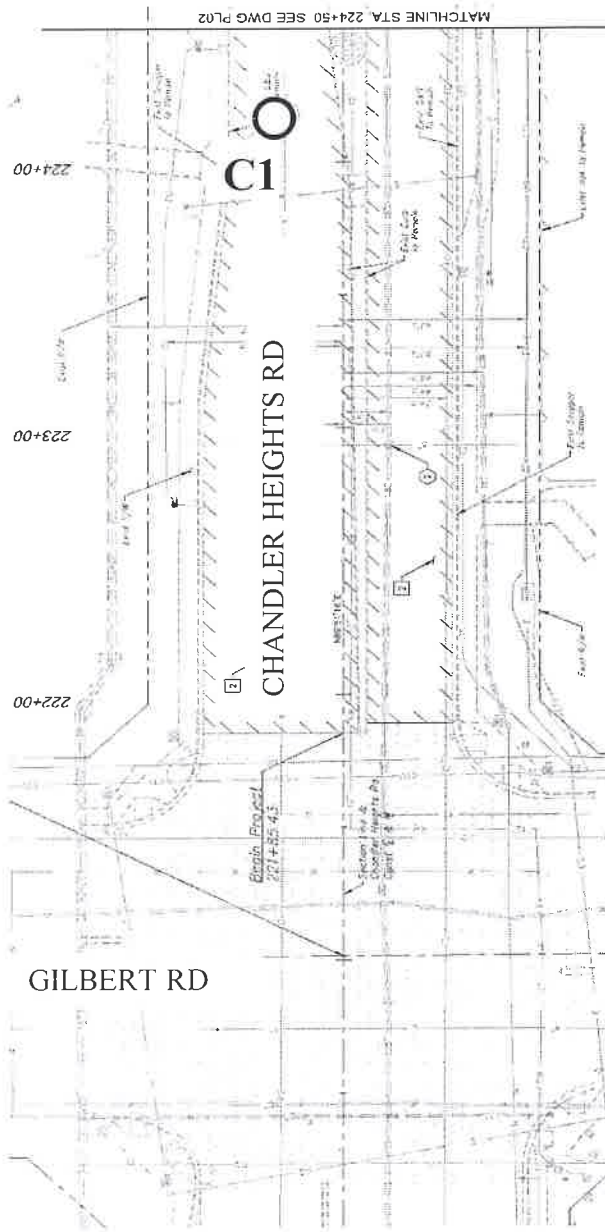
* Includes upper 3 feet of trench backfill in pavement areas.

7. Any soils which are disturbed or overexcavated by the contractor outside the limits of the plans or specifications should be replaced with material compacted as specified above.



APPENDIX A
FIELD EXPLORATIONS



R·A·M·M

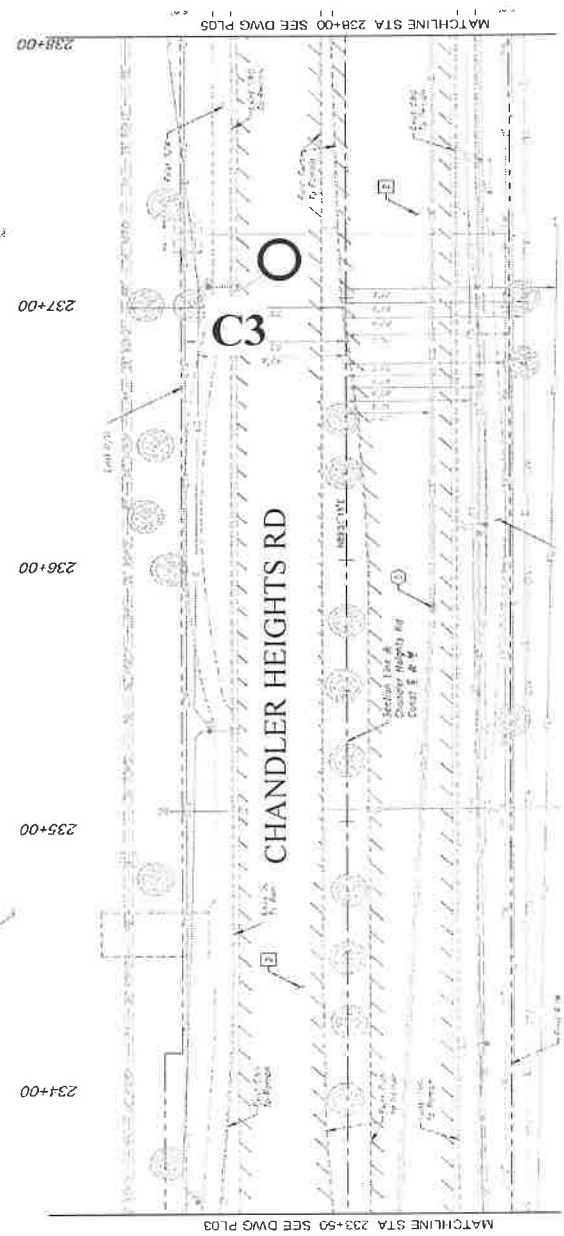
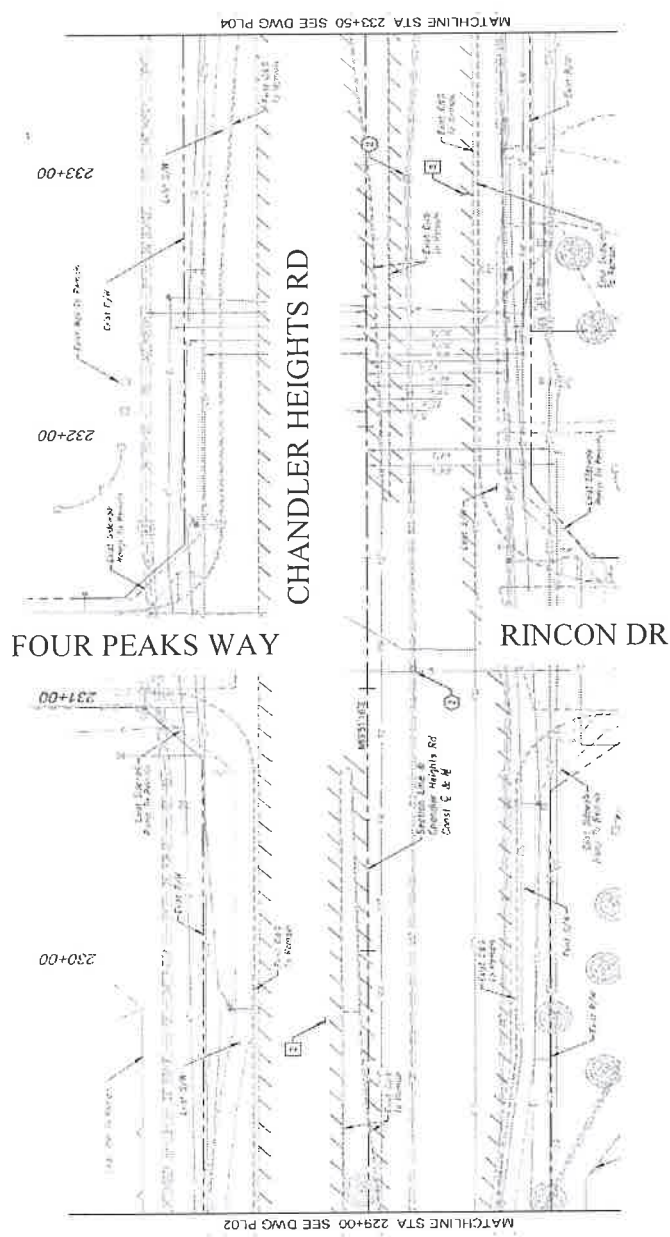


CHANDLER HEIGHTS ROAD IMPROVEMENTS: GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

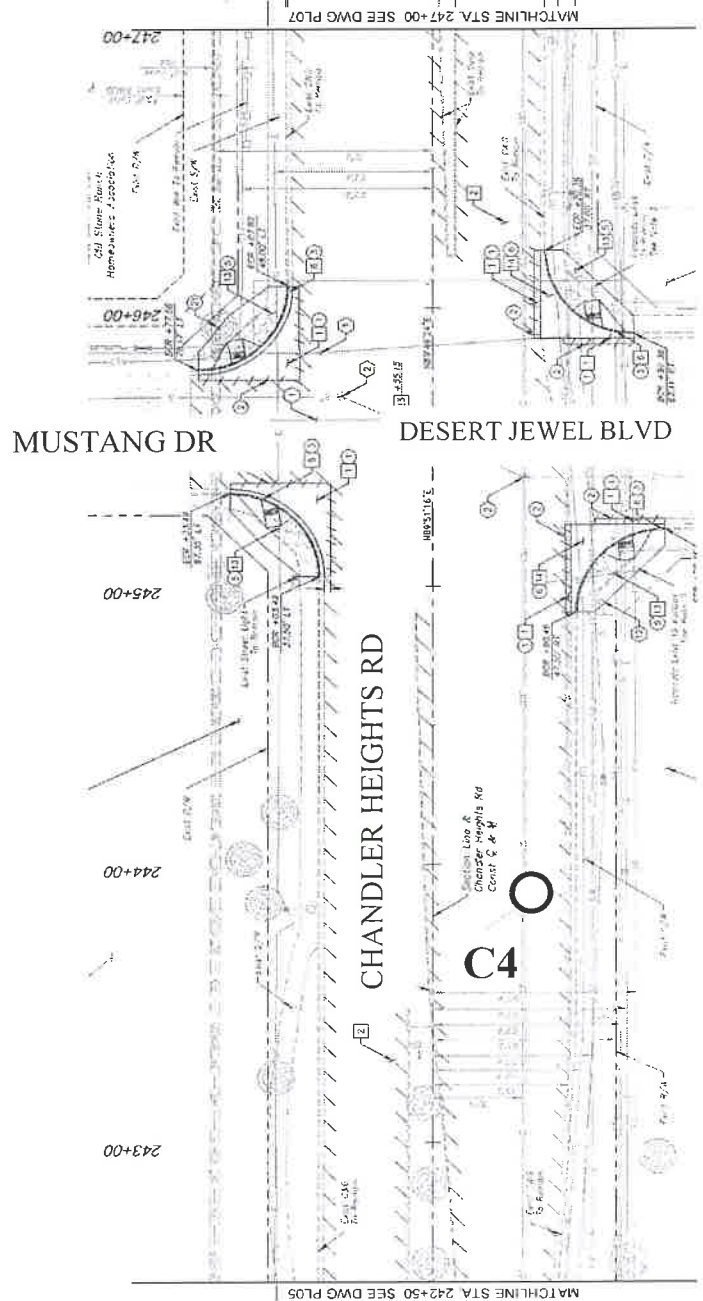
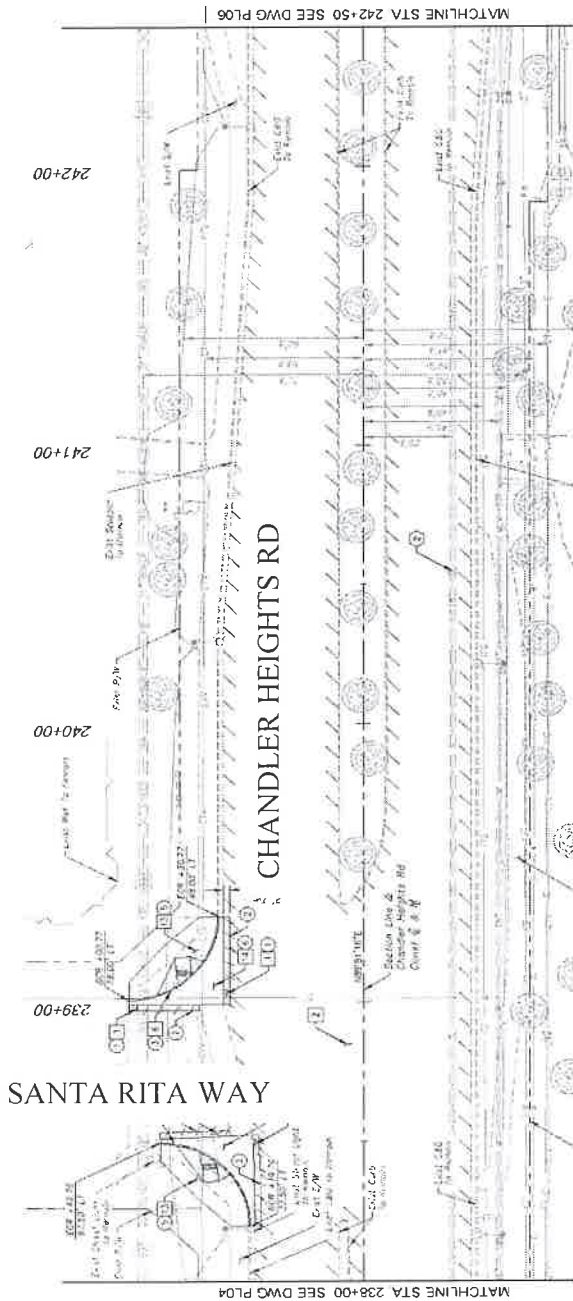


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

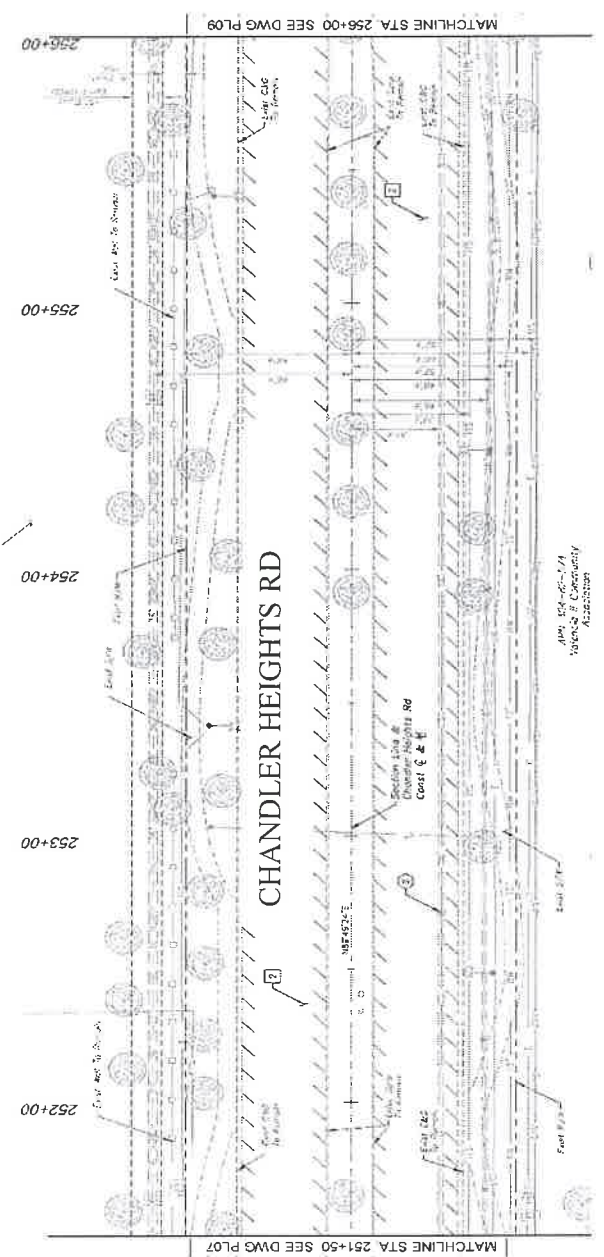
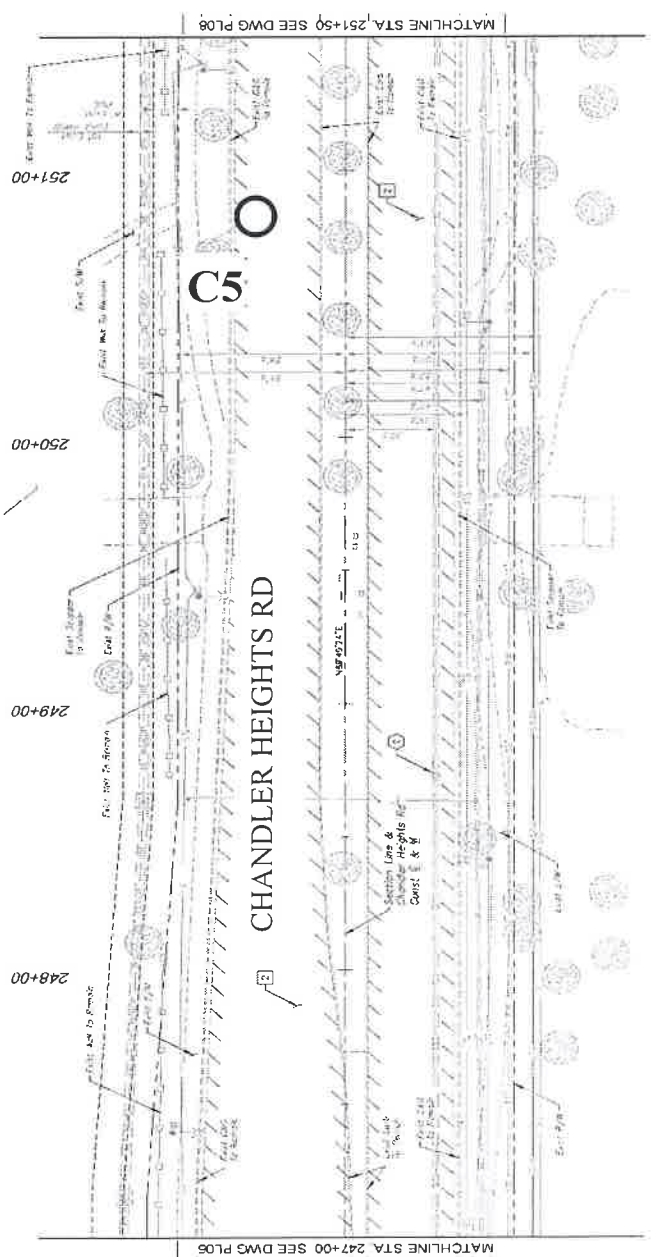


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

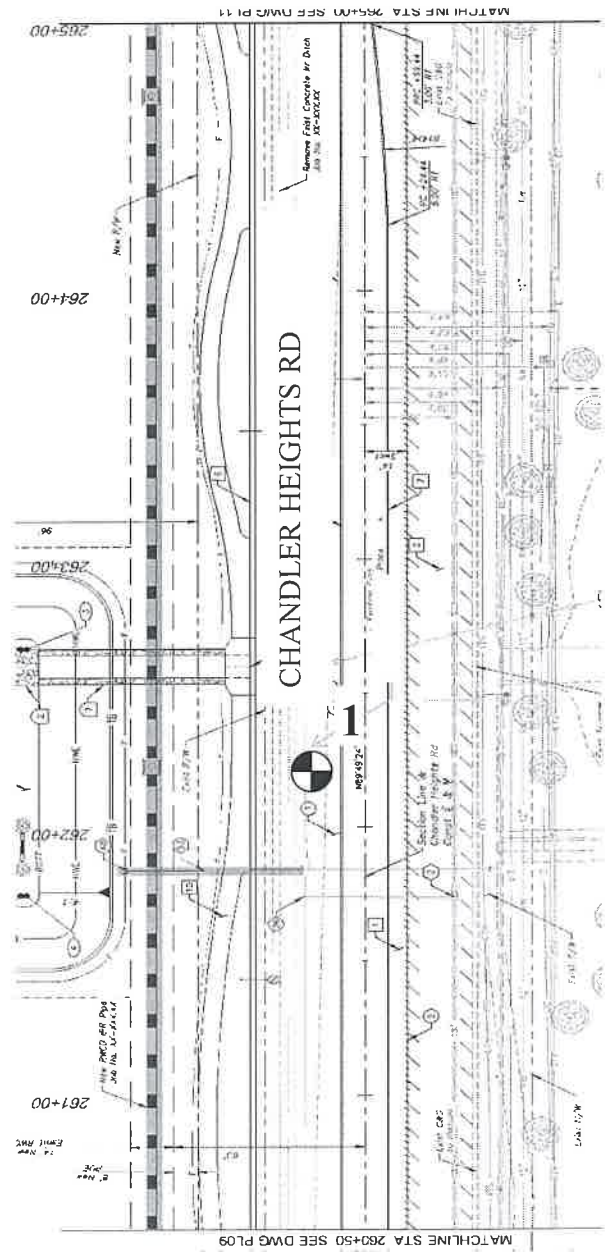
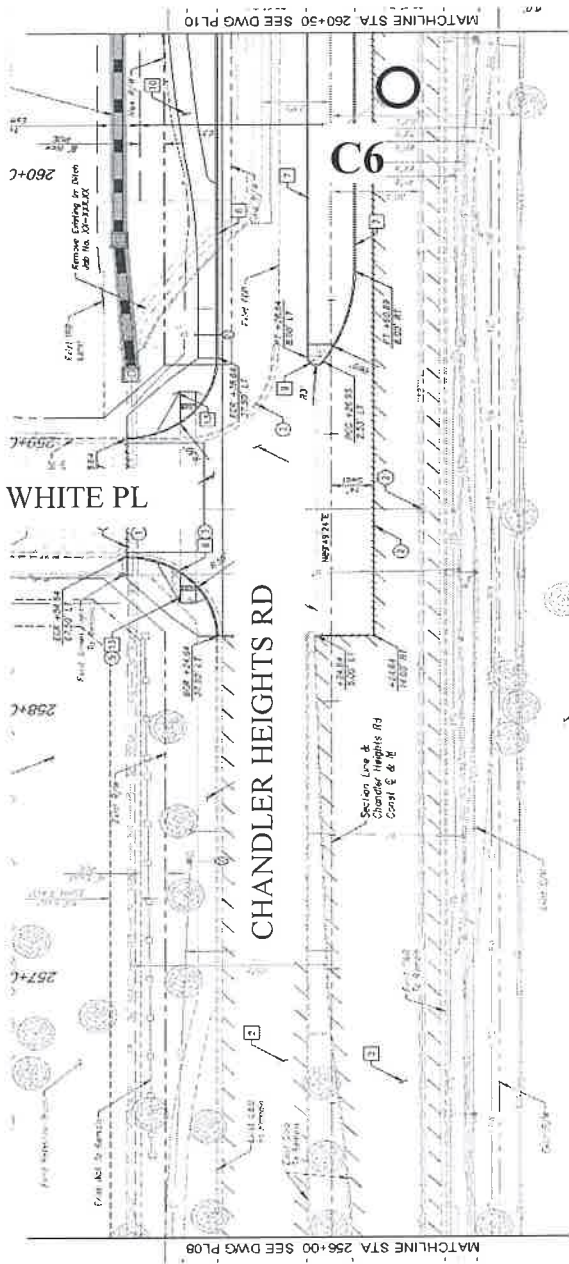


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

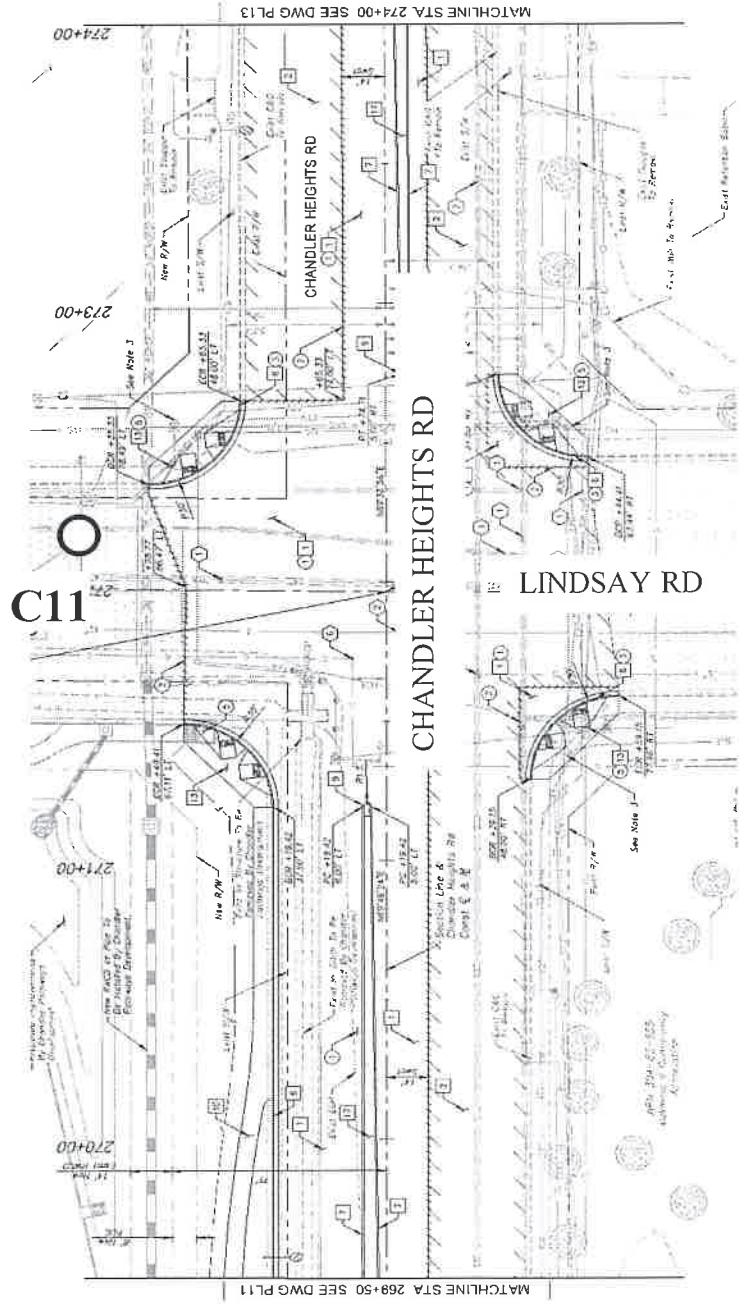
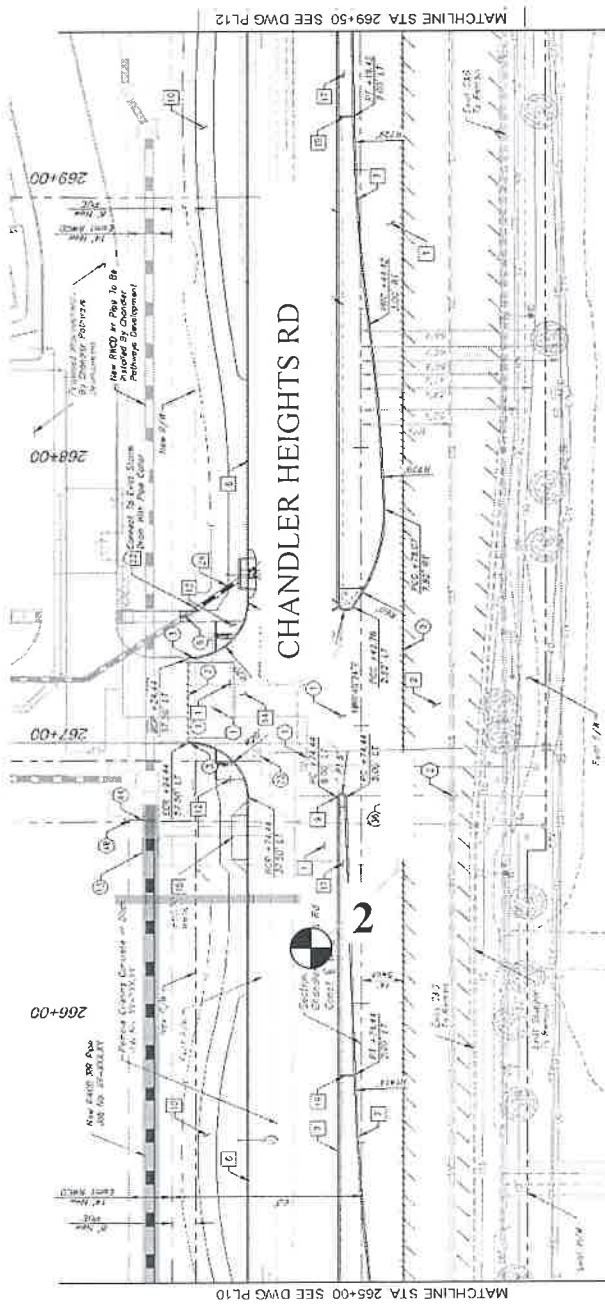


CHANDLER HEIGHTS ROAD IMPROVEMENTS: GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

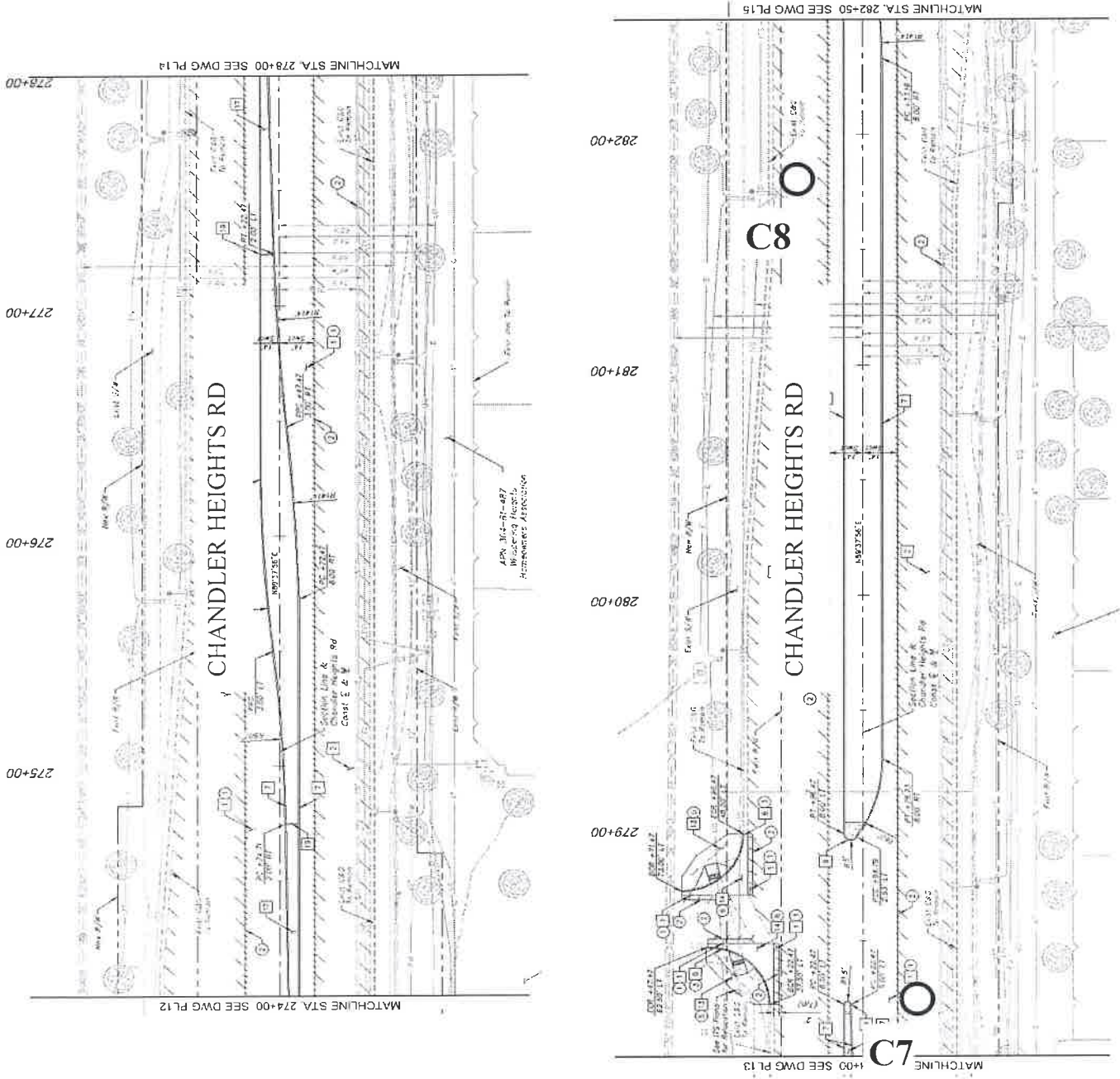


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

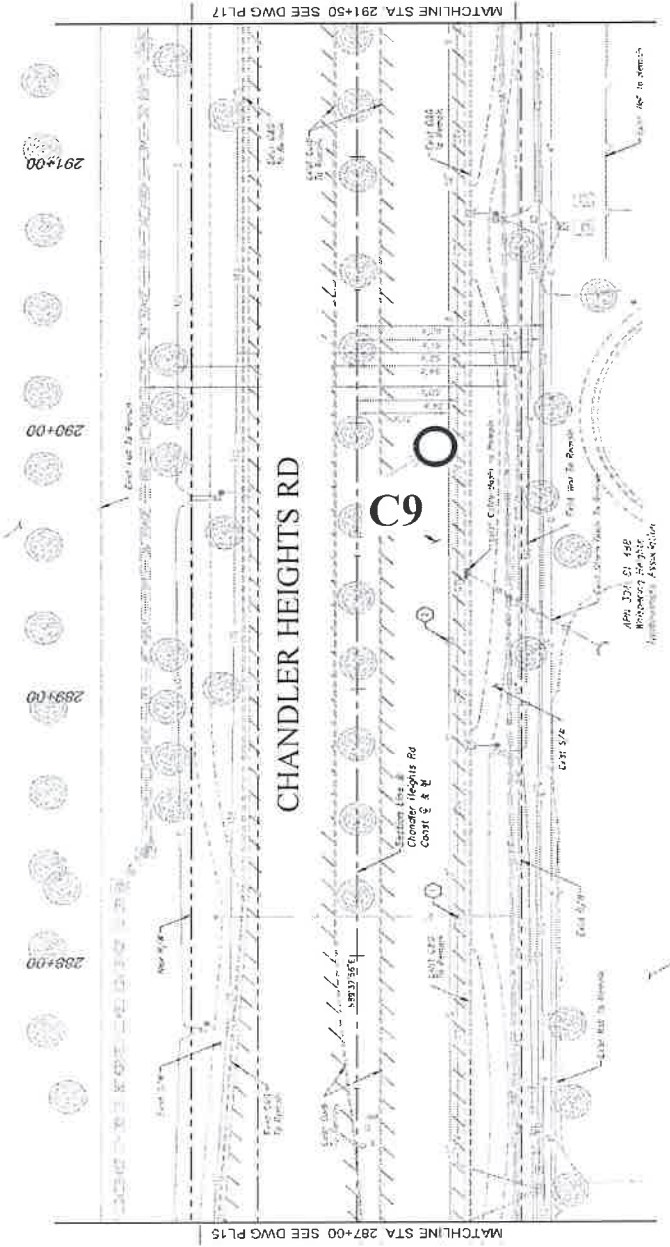
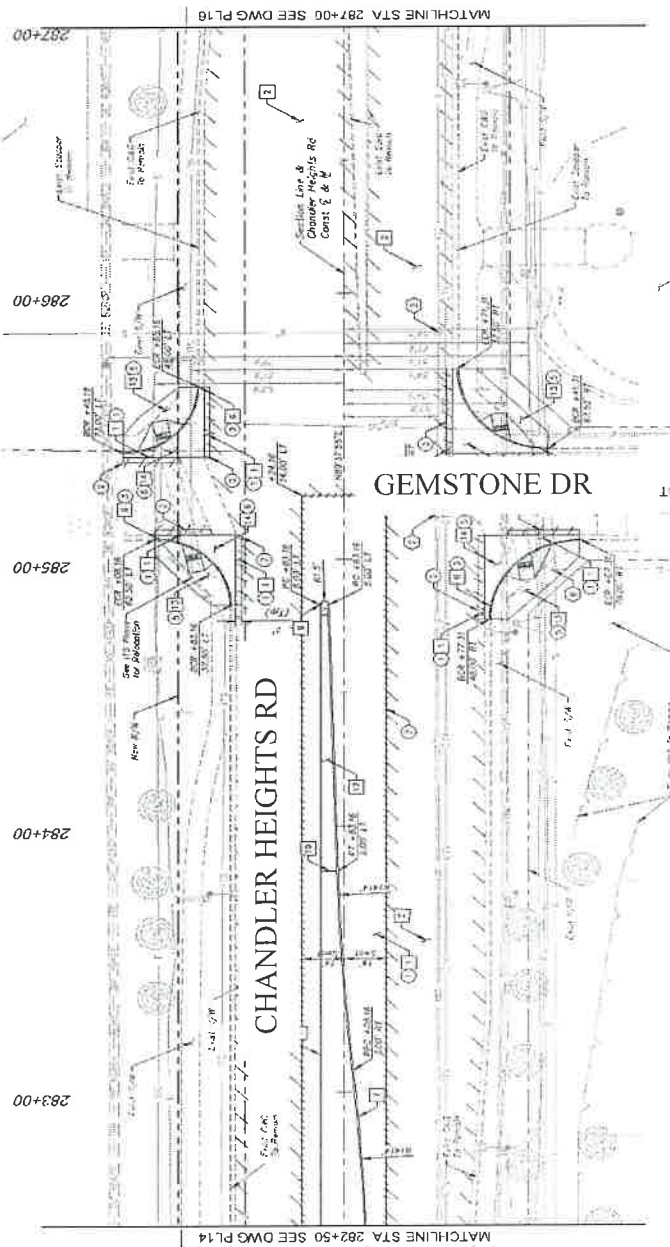


CHANDLER HEIGHTS ROAD IMPROVEMENTS: GILBERT ROAD TO VAL VISTA DRIVE

-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

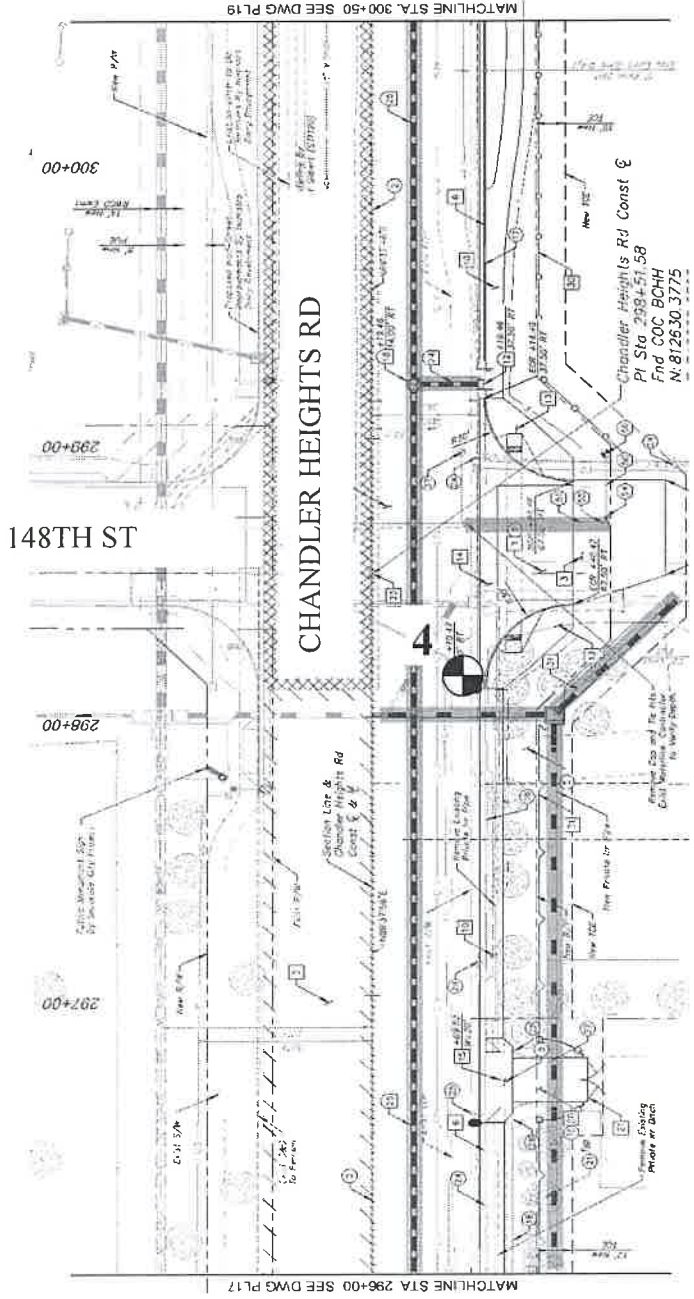
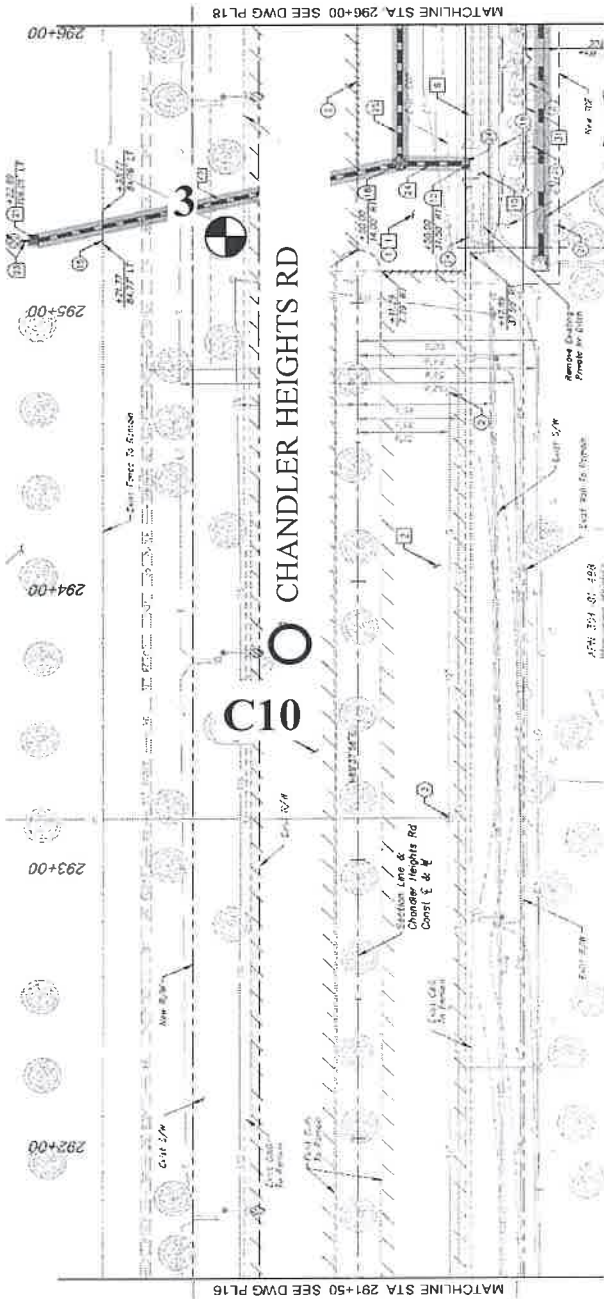


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE

-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

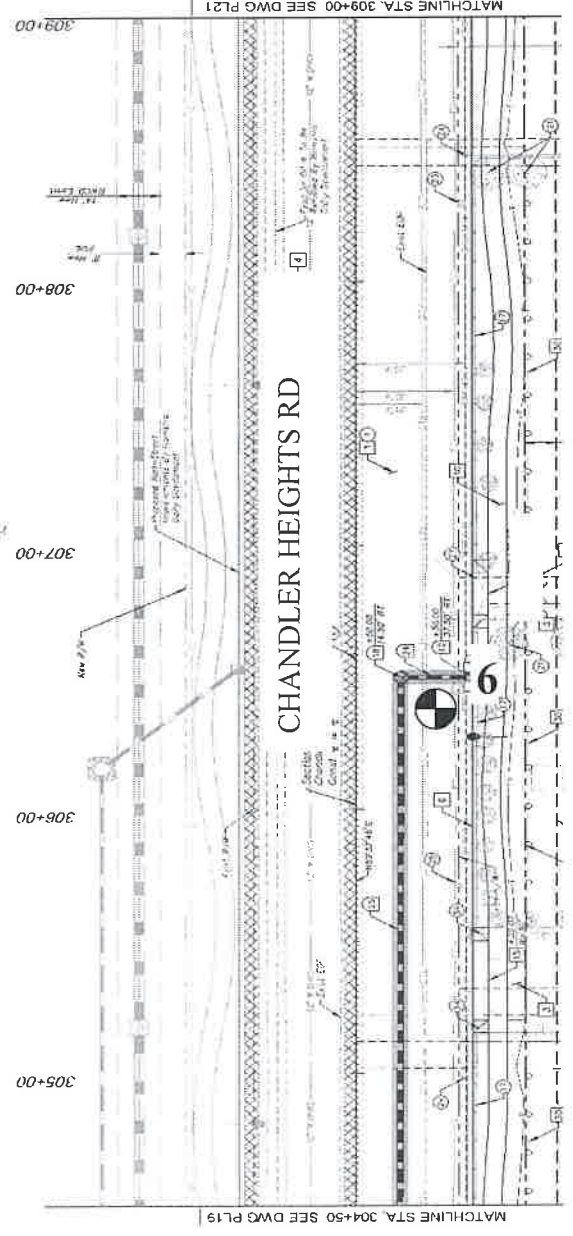
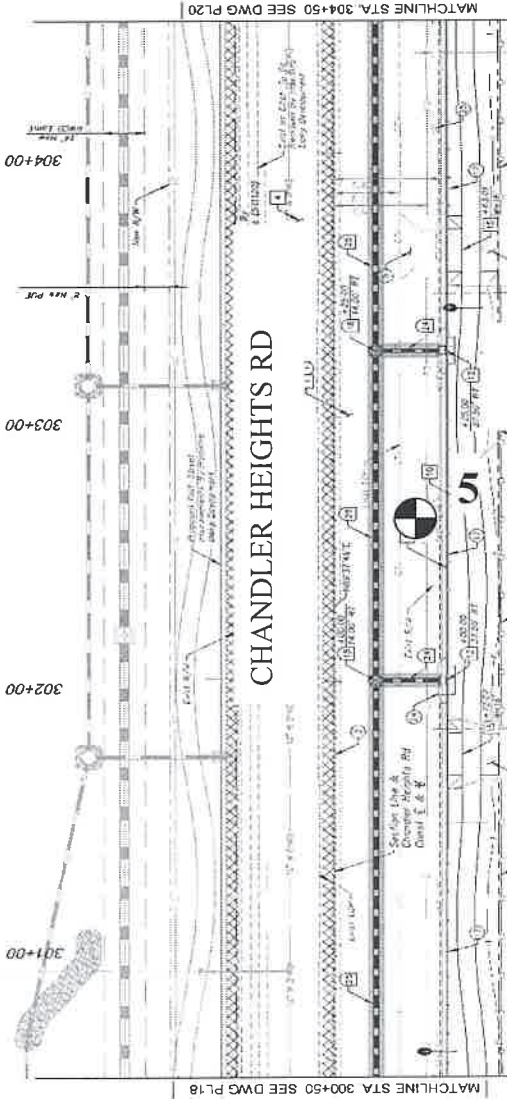


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE

- Test Boring Location
- AC Core Location

Not To Scale

SITE PLAN

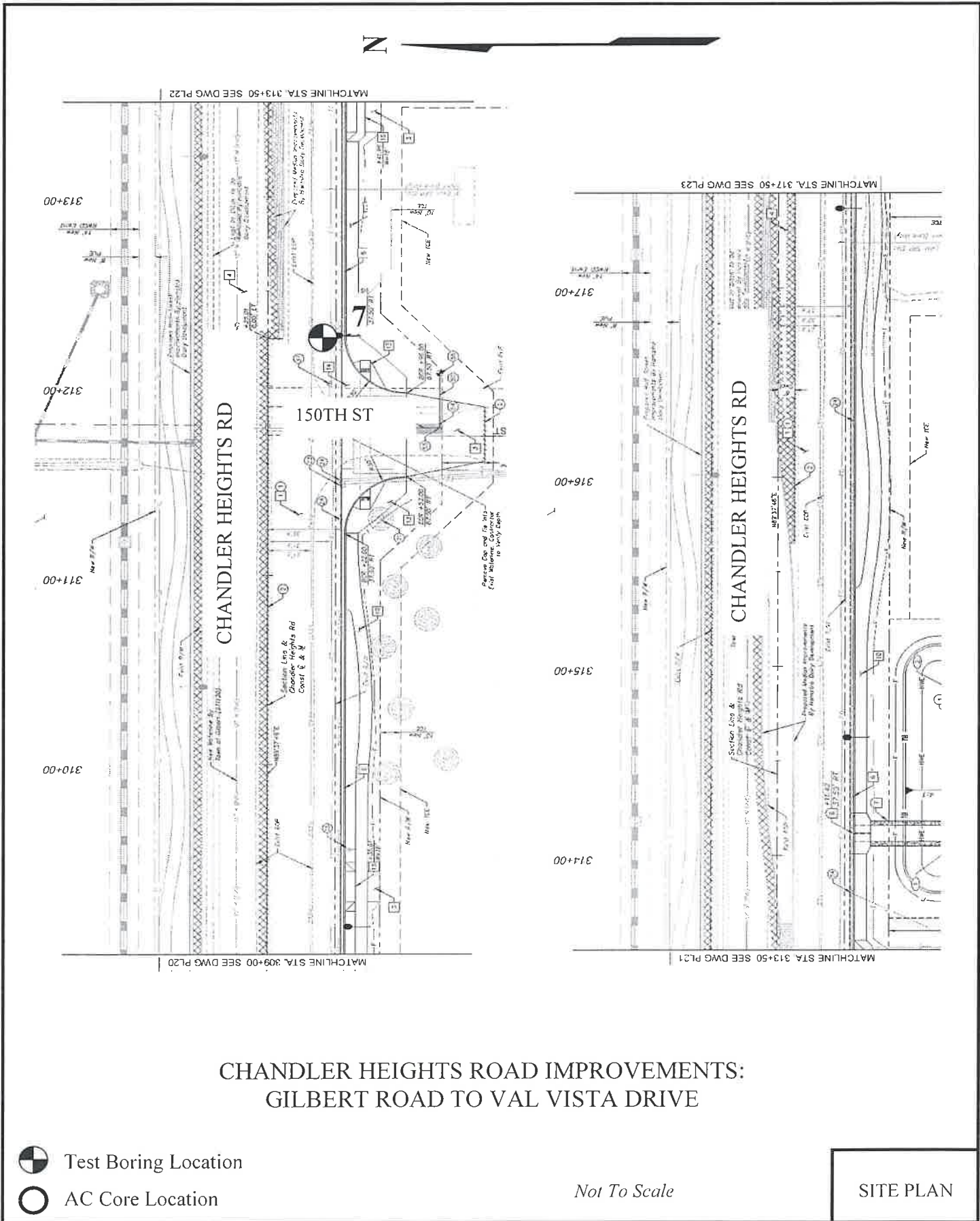


CHANDLER HEIGHTS ROAD IMPROVEMENTS: GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

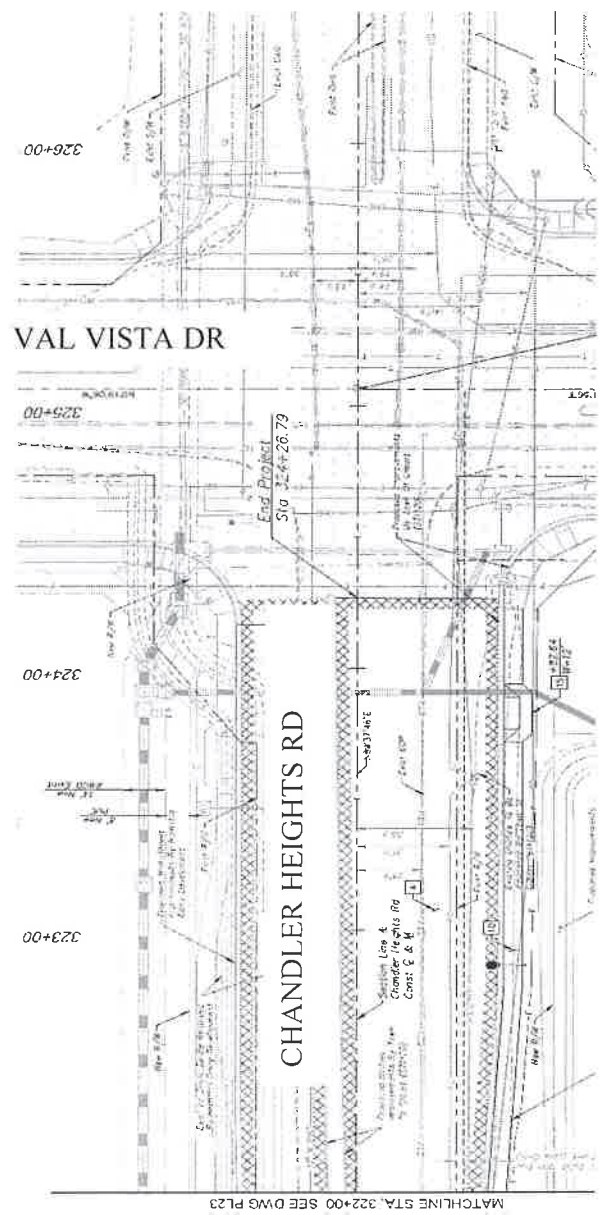
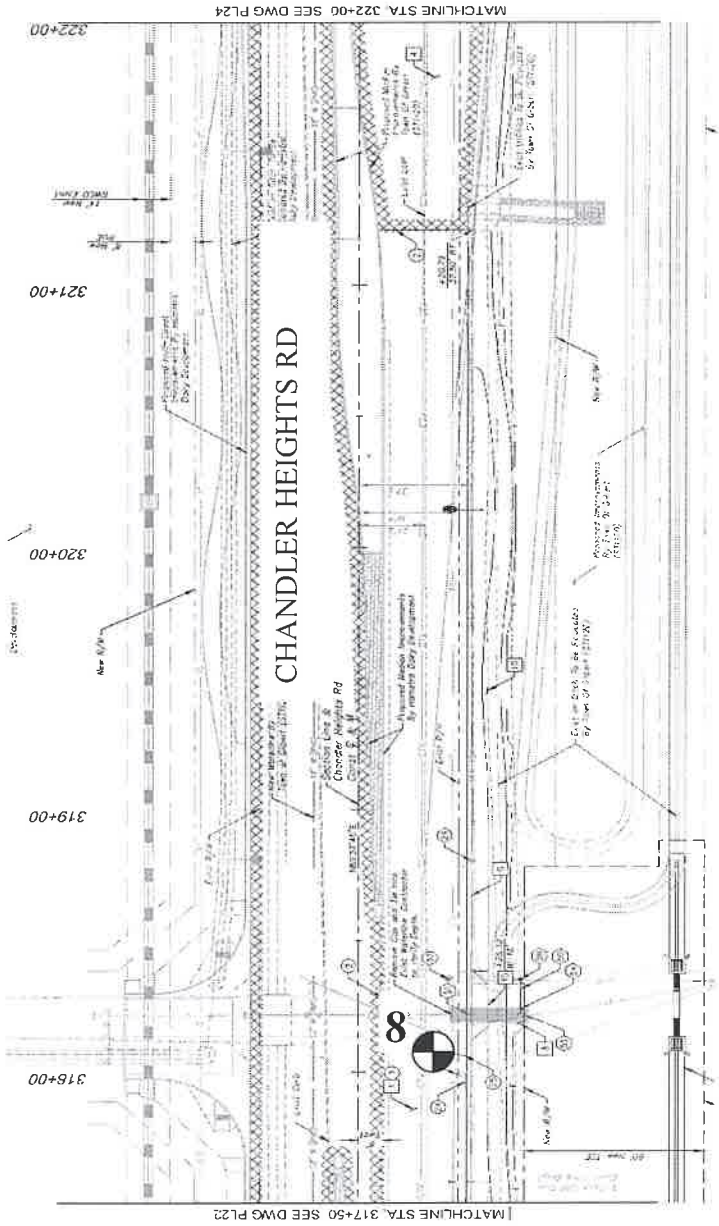


CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE



-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN



CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE

-  Test Boring Location
-  AC Core Location

Not To Scale

SITE PLAN

BORING GEOMETRY/STATIONING			
Boring No.	Diameter	Station	
1	8 inch	262+21	L17
2	8 inch	266+19	L17
3	8 inch	295+21	L44
4	8 inch	298+13	R29
5	8 inch	302+61	R25
6	8 inch	306+39	R26
7	8 inch	312+25	R25
8	8 inch	318+08	R26
Core No.	Diameter	Station	
C1	6 inch	224+18	L18
C2	6 inch	228+03	R22
C3	6 inch	237+14	L21
C4	6 inch	243+90	R35
C5	6 inch	250+86	L29
C6	6 inch	260+29	R23
C7	6 inch	278+10	R23
C8	6 inch	281+81	L25
C9	6 inch	289+90	R25
C10	6 inch	293+77	L23
C11	6 inch	272+17	L101

CHANDLER HEIGHTS ROAD IMPROVEMENTS:
GILBERT ROAD TO VAL VISTA DRIVE

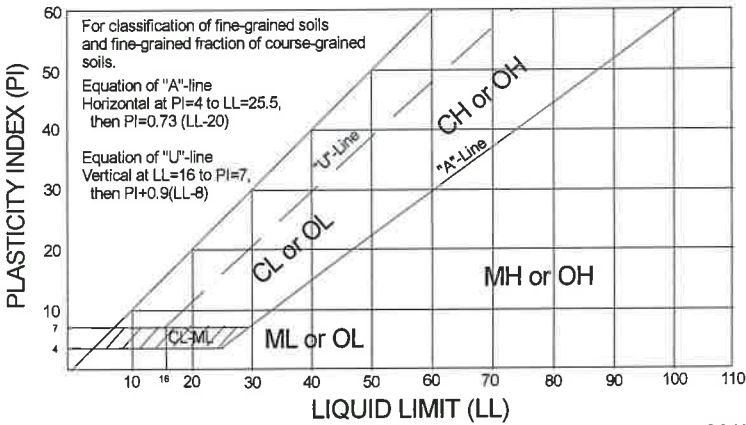
STATIONING

LEGEND

ASTM Designation: D2487-11
(Based on Unified Soil Classification System)

CLASSIFICATION OF SOILS

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				Soil Classification			
				Group Symbol	Name		
COARSE-GRAINED SOILS More than 50% retained on No. 200 Sieve	Gravels More than 50% coarse fraction retained on No. 4 Sieve	Clean Gravels Less than 5% fines	$Cu > 4$ and $1 < Cc < 3$	GW	Well graded gravel		
		Gravels with Fines More than 12% fines	$Cu < 4$ and/or $1 > Cc > 3$	GP	Poorly graded gravel		
		Clean Sands Less than 5% fines	Fines classify as ML or MH	GM	Silty gravel		
		Sands with Fines More than 12% fines	Fines classify as CL or CH	GC	Clayey gravel		
	FINE-GRAINED SOILS 50% or more passes the No. 200 Sieve	Silts and Clays Liquid limit less than 50	Clean Sands Less than 5% fines	$Cu > 6$ and $1 < Cc < 3$	SW	Well-graded sand	
			Sands 50% or more of coarse fraction passes No. 4 sieve	$Cu < 6$ and/or $1 > Cc > 3$	SP	Poorly graded sand	
			Sands with Fines More than 12% fines	Fines classify as ML or MH	SM	Silty sand	
			Sands with Fines More than 12% fines	Fines classify as CL or CH	SC	Clayey sand	
		Silts and Clays Liquid limit 50 or more	Inorganic	$PI > 7$ and plots on or above "A" line	$PI > 7$ and plots on or above "A" line	CL	Lean clay
				$PI < 4$ or plots below "A" line	$PI < 4$ or plots below "A" line	ML	Silt
Organic			Liquid Limit - oven dried Liquid limit - not dried	< 0.75	OL	Organic clay Organic silt	
			PI plots on or above "A" line	PI plots on or above "A" line	CH	Fat clay	
Organic			PI plots below "A" line	PI plots below "A" line	MH	Elastic silt Organic clay	
			Liquid limit - oven dried Liquid limit - not dried	< 0.75	OH	Organic silt	
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor			PT	Peat		



TEST BORING LOG DEFINITIONS

Blows per foot using 140 pound hammer with 30 inch free-fall.

Depth, feet	Blows/Foot		Sample Type	Dry Density pcf	Water Content, %	Unified Classification	Description
	C	N/R					

C = Continuous Penetration Resistance (2 inch diameter rod)
 N = Standard Penetration Resistance (ASTM D1586)
 R = Penetration Resistance (3 inch diameter ring line sampler)
 RQD = Rock Quality Designation
 = Static Water Level

GRAIN SIZES

U.S. STANDARD SERIES SIEVE

CLEAR SQUARE SIEVE OPENINGS

200 40 10 4 3/4" 3" 12"

SILTS & CLAYS
DISTINGUISHED ON
BASIS OF PLASTICITY

SAND

GRAVEL

FINE MEDIUM COARSE

FINE COARSE

COBBLES

BOULDERS

MOISTURE CONDITION (INCREASING MOISTURE →)

DRY

SLIGHTLY DAMP

DAMP

MOIST
(Plastic Limit)

VERY MOIST

WET (SATURATED)

(Liquid Limit)

CONSISTENCY CORRELATION

RELATIVE DENSITY CORRELATION

CLAYS & SILTS

BLOWS/FOOT*

SANDS & GRAVELS

BLOWS/FOOT*

VERY SOFT

0-2

VERY LOOSE

0-4

SOFT

2-4

LOOSE

4-10

FIRM

4-8

MEDIUM DENSE

10-30

STIFF

8-16

DENSE

30-50

VERY STIFF

16-32

VERY DENSE

OVER 50

HARD

OVER 32

*Number of blows of 140 lb hammer falling 30" to drive a 2" O.D. (1-3/8" I.D.) split-spoon sampler (ASTM D1586).

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 1
 Elevation: Not Determined Datum: STA 262+21, L17' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		15	R	104	9	SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines. Medium to high plasticity fines 5.0 to 9.0 feet Medium plasticity fines below 9.0 feet.
		12	R	100	11		
		16	R	115	13		
10		16	R	104	11		
15							Stopped drilling at 11.0 feet. No groundwater observed.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 2
 Elevation: Not Determined Datum: STA 266+19, L17' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		27	R	119	2	SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
		13	R	114	8		Upper 1.0-foot possible fill.
10		15	R	100	17	SC-SM	Clayey Sand – Silty Sand, Some to With Gravel; brown, nearly dry with zones of moist, medium dense, medium to low plasticity fines.
15		16	R	116	5	SM	Sand, Some Silt. Trace Gravel; brown, nearly dry, medium dense, some low plasticly fines.
20							Stopped drilling at 11.0 feet. No groundwater observed.
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 3
 Elevation: Not Determined Datum: STA 295+21, L44' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		28	R	92	6		4.75" Asphalt Concrete on Subgrade
		16	R	102	7	SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines. Upper 1.0-foot may be fill.
		29	R	99	8		
10		25	R	108	6		
						SM	Sand, Some Silt. Trace Gravel; brown, nearly dry, medium dense, some low plasticly fines.
15		29	R	103	5		
20							Stopped drilling at 16.0 feet. No groundwater observed.
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 4
 Elevation: Not Determined Datum: STA 298+12, R30' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		40	R	118	3		4.5" Asphalt Concrete on Subgrade
		40	R	102	5	SC-SM	Clayey Sand – Silty Sand, Some to With Gravel; brown, nearly dry with zones of moist, medium dense, medium to low plasticity fines. Upper 1.0-foot may be fill.
		50/10"	R	103	4		
		19	R	109	3		
10							
						SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
15		18	R	109	5		
							Stopped drilling at 16.0 feet. No groundwater observed.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 5
 Elevation: Not Determined Datum: STA 302+61, R36' Date: 10-10-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		50/11"	R	127	2		3.75" Asphalt Concrete on 0.5" Base Material
		24	R	110	8	SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines. Upper 1.0-foot may be fill.
		18	R	101	7		
10		18	R	111	4	SM	Sand, Some Silt, Trace Gravel; brown, nearly dry, medium dense, some low plasticity fines.
15		19	R	109	5		
20							Stopped drilling at 16.0 feet. No groundwater observed.
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 6
 Elevation: Not Determined Datum: STA 306+39, R26' Date: 10-10-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		30	R	121	3		4.5" Asphalt Concrete on 4.0" Base Material
		20	R	101	7	SC /CL	Clayey Sand/Sandy Clay, Some Gravel; brown, nearly dry, medium dense/stiff to very stiff, medium plasticity. Upper 1.0-foot may be fill.
		18	R	94	12		
10		19	R	108	6	SC-SM	Clayey Sand – Silty Sand, Some to With Gravel; brown, nearly dry with zones of moist, medium dense, medium to low plasticity fines.
15		18	R	111	6		
20							Stopped drilling at 16.0 feet. No groundwater observed.
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 7
 Elevation: Not Determined Datum: STA 312+25, R25' Date: 10-10-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		44	R	117	5		5.0" Asphalt Concrete on 4.5" Base Material
		7	R	93	6	SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines. Upper 1.0-foot may be fill.
		50/7"	R	100	7		
10		32	R	112	4	SC-SM	Clayey Sand - Silty Sand, Some to With Gravel; brown, nearly dry with zones of moist, medium dense, medium to low plasticity fines.
15							Stopped drilling at 11.0 feet. No groundwater observed.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: 8
 Elevation: Not Determined Datum: STA 318+08, R26' Date: 10-10-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		39	R	118	2		4.0" Asphalt Concrete on 3.0" Base Material
		7	R	107	9	SC-SM	Clayey Sand - Silty Sand, Some to With Gravel; brown, nearly dry with zones of moist, medium dense, medium to low plasticity fines. Upper 1.0-foot may be fill.
		21	R	96	9	SC	Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
10		32	R	98	23		
15							Stopped drilling at 11.0 feet. No groundwater observed.
20							
25							
							This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C1
 Elevation: Not Determined Datum: STA 224+18, L18' Date: 10-8-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		50/10"	R	119	3	GP-GM	5.0" Asphalt Concrete on Subgrade. Gravel, With Sand, Some Silt; brown, nearly dry, dense, some non-plastic fines.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C2
 Elevation: Not Determined Datum: STA 228+03, R22' Date: 10-8-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		21	R	117	7	SC	5.75" Asphalt Concrete on 7.0" Base Material Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C3
 Elevation: Not Determined Datum: STA 237+14, L21' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		30	R	123	3	SC	4.25" Asphalt Concrete on 6.5" Base Material Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C4
 Elevation: Not Determined Datum: STA 243+90, R35' Date: 10-8-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		24	R	125	9	SC	3.625" Asphalt Concrete on 10.0" Base Material Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C5
 Elevation: Not Determined Datum: STA 250+86, L29' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		28	R	119	11	SC-SM	4.25" Asphalt Concrete on 8.0" Base Material Clayey Sand – Silty Sand, Some to With Gravel; brown, nearly dry with zones of moist, medium dense, medium to low plasticity fines.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C6
 Elevation: Not Determined Datum: STA 260+29, R23' Date: 10-8-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		11	R	115	12	SC/CL	1.75" Asphalt Concrete on 8.0" Base Material Clayey Sand/Sandy Clay, Some Gravel; brown, nearly dry, medium dense/stiff to very stiff, medium plasticity.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C7
 Elevation: Not Determined Datum: STA 278+10, R23' Date: 10-8-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		22	R	122	9	SC	4 3/8" Asphalt Concrete on 5.5" Base Material Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C8
 Elevation: Not Determined Datum: STA 281+81 L25' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		34	R	120	7	SC /CL	4.5" Asphalt Concrete on 5.0" Base Material Clayey Sand/Sandy Clay, Some Gravel; brown, nearly dry, medium dense/stiff to very stiff, medium plasticity.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C9
 Elevation: Not Determined Datum: STA 289+90, R25' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		19	R	118	14	SC /CL	4.25" Asphalt Concrete on 5.5" Base Material Clayey Sand/Sandy Clay, Some Gravel; brown, nearly dry, medium dense/stiff to very stiff, medium plasticity.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C10
 Elevation: Not Determined Datum: STA 293 + 77, L23' Date: 10-9-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		21	R	124	9	SC /CL	4.0" Asphalt Concrete on 6.5" Base Material Clayey Sand/Sandy Clay, Some Gravel; brown, nearly dry, medium dense/stiff to very stiff, medium plasticity.
10							Stopped drilling at 5.0 feet. No groundwater observed.
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

TEST BORING LOG

Project: Chandler Heights Road Improvements, Chandler, Arizona Test Boring: C11
 Elevation: Not Determined Datum: STA 272+17, L101' Date: 10-8-19

Depth, feet	Blows/Foot		Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
	C	N/R					
5		24 8	R N	NR	10	SC	3.5" Asphalt Concrete on 14.5" Base Material Clayey Sand, Some to With Gravel; brown, nearly dry to slightly damp, medium dense, medium plasticity fines.
							Stopped drilling at 5.0 feet. No groundwater observed.
10							
15							
20							
25							
							This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

**INITIAL
APPENDIX B
LABORATORY ANALYSIS**



R·A·M·M

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: 1 @ 2.5'-3.5'

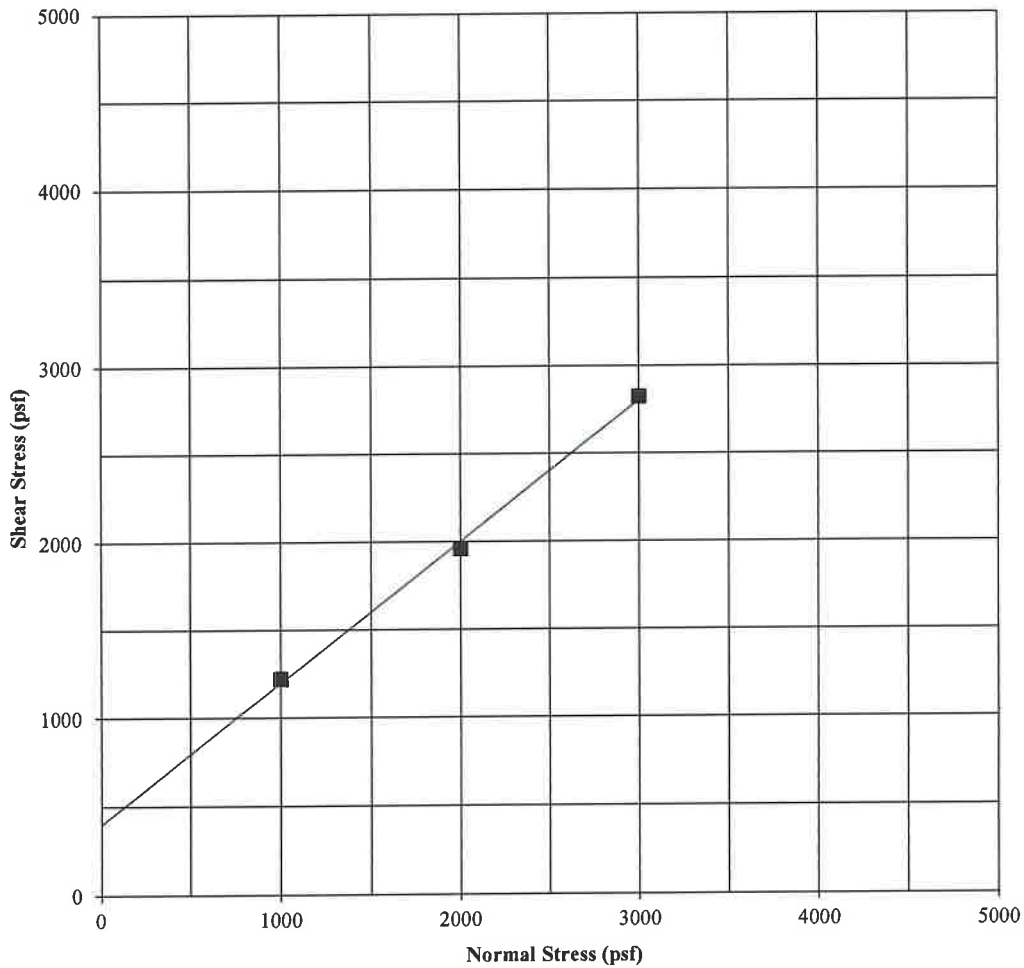
TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf): 100 Moisture Content (%): 11

Cohesion (psf): 400 Friction Angle (phi): 39



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: 2 @ 5'-6'

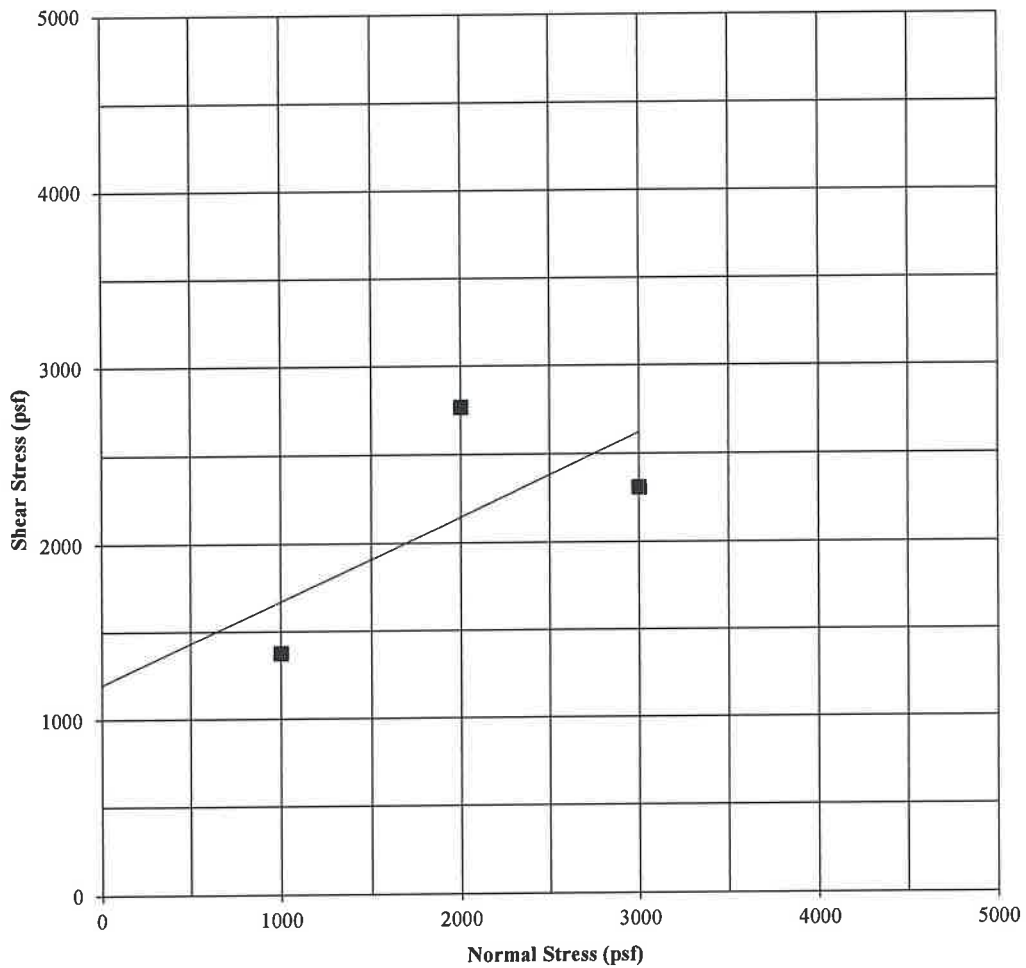
TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf): 100 Moisture Content (%): 17

Cohesion (psf): 1200 Friction Angle (phi): 25



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

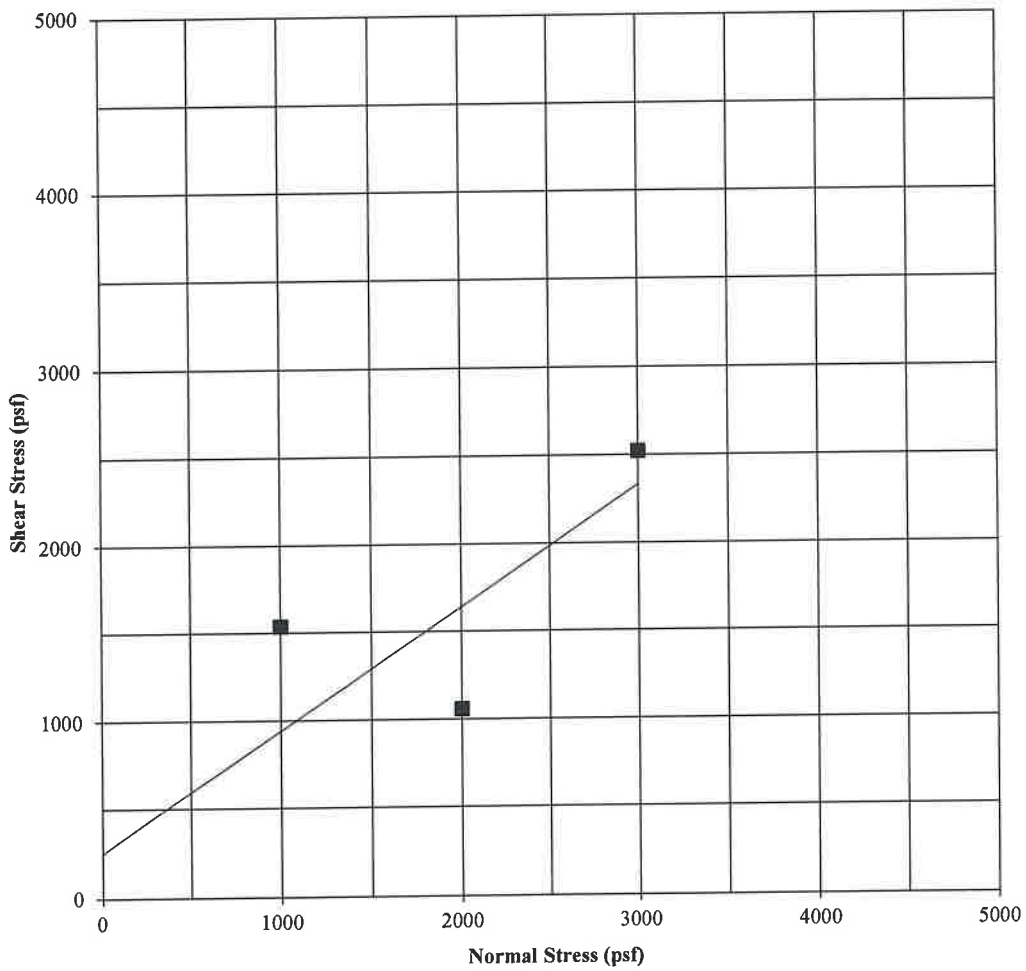
SAMPLE SOURCE: 3 @ 10'-11'

TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf):	108	Moisture Content (%):	6
Cohesion (psf):	300	Friction Angle (phi):	34



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: 4 @ 2.5'-3.5'

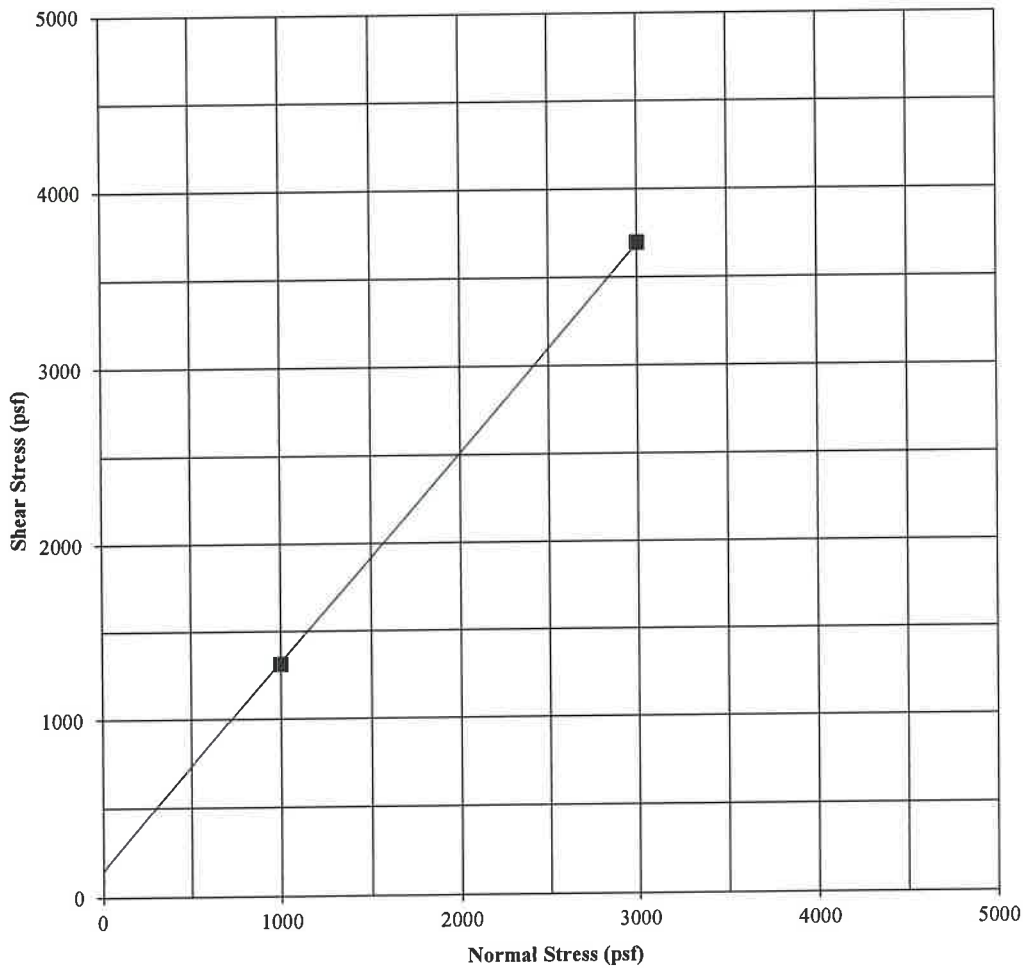
TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf): 102 Moisture Content (%): 5

Cohesion (psf): 200 Friction Angle (phi): 50



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: 5 @ 5'-6'

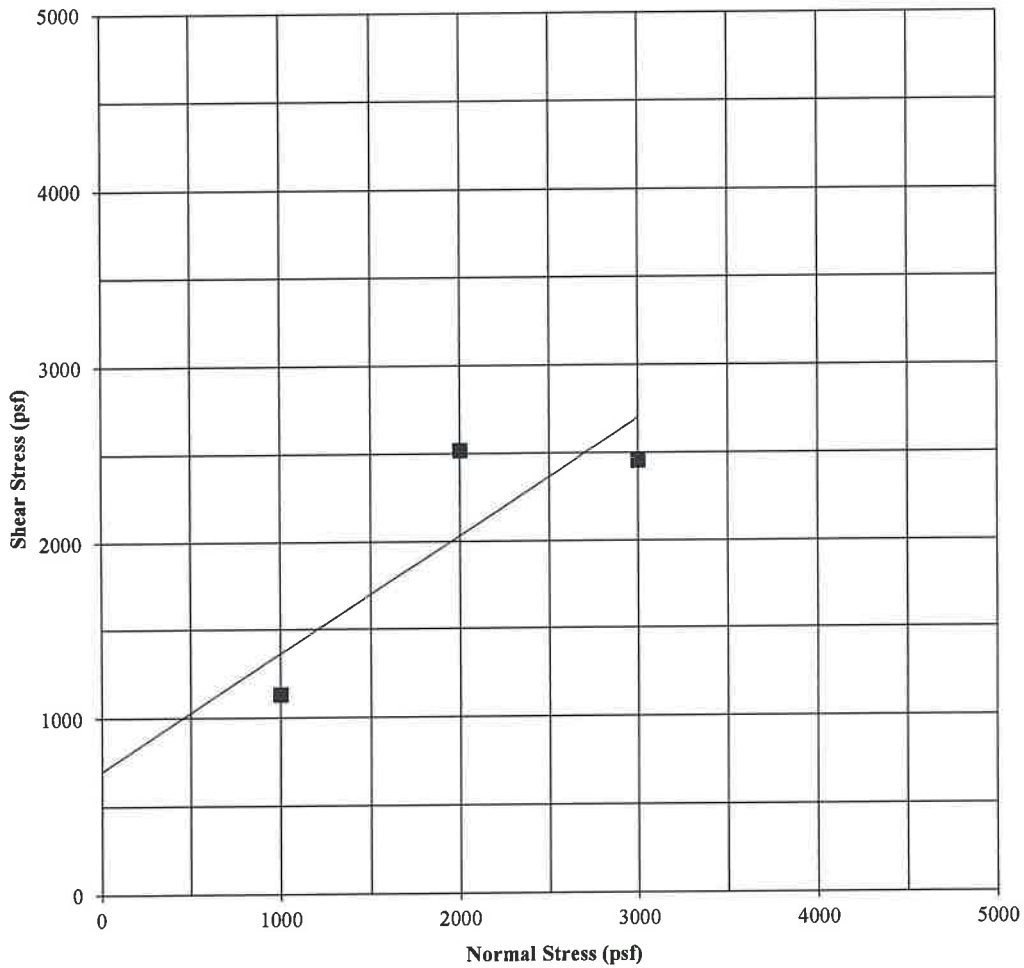
TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf): 101 Moisture Content (%): 9

Cohesion (psf): 700 Friction Angle (phi): 34



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

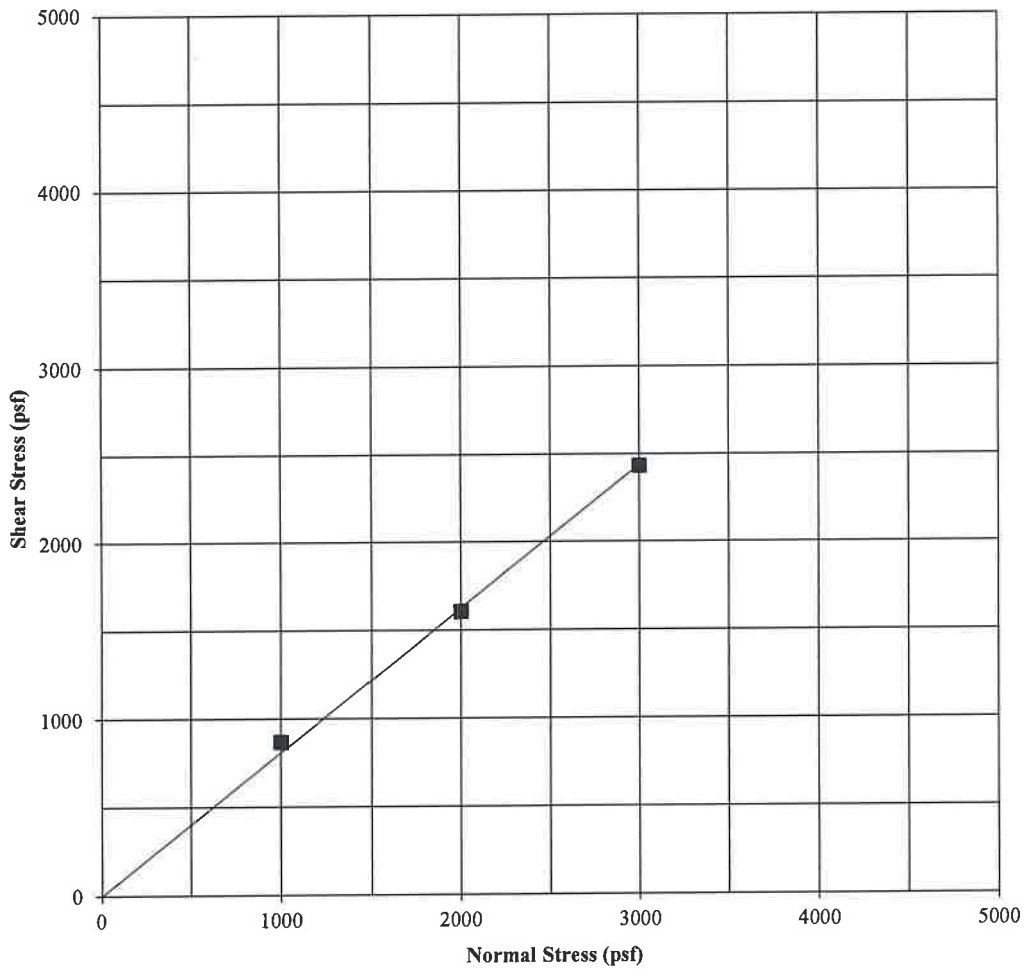
SAMPLE SOURCE: 6 @10'-11'

TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf):	108	Moisture Content (%):	6
Cohesion (psf):	0	Friction Angle (phi):	39



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: 7 @ 5'-6'

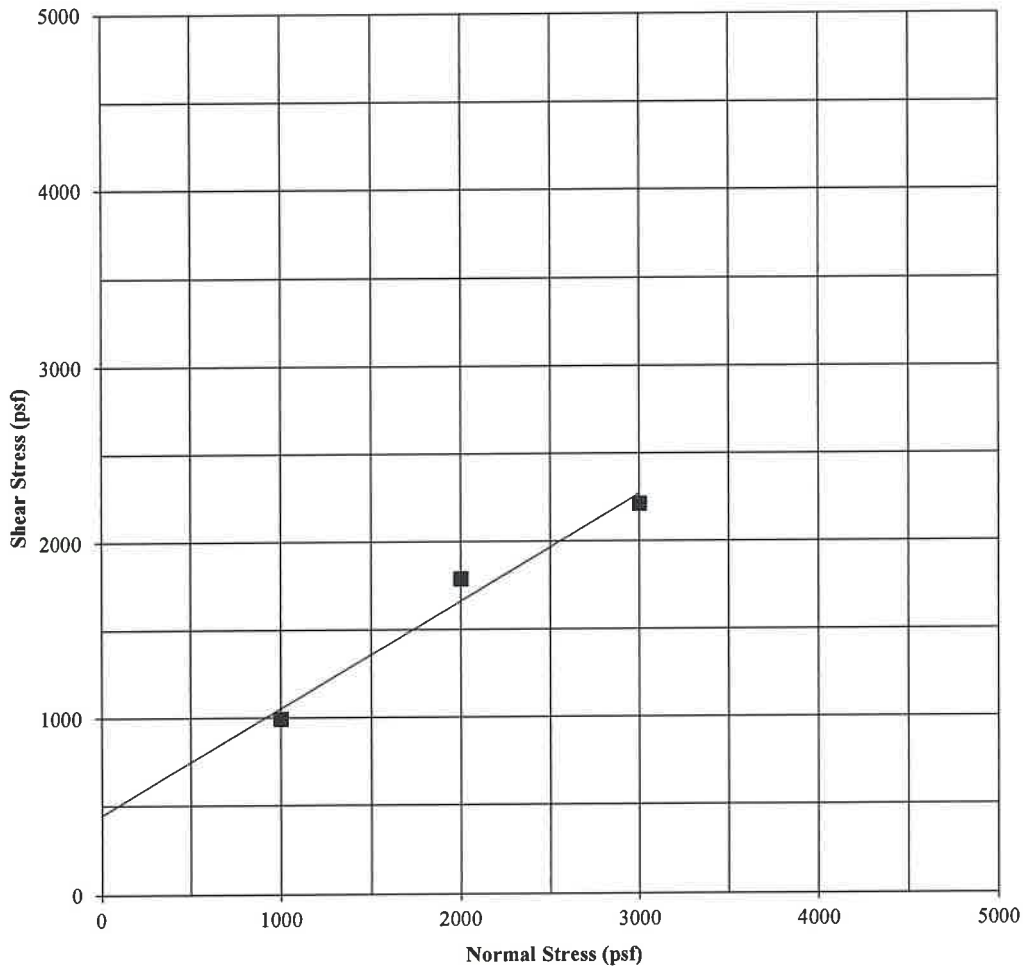
TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf): 100 Moisture Content (%): 7

Cohesion (psf): 400 Friction Angle (phi): 31



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

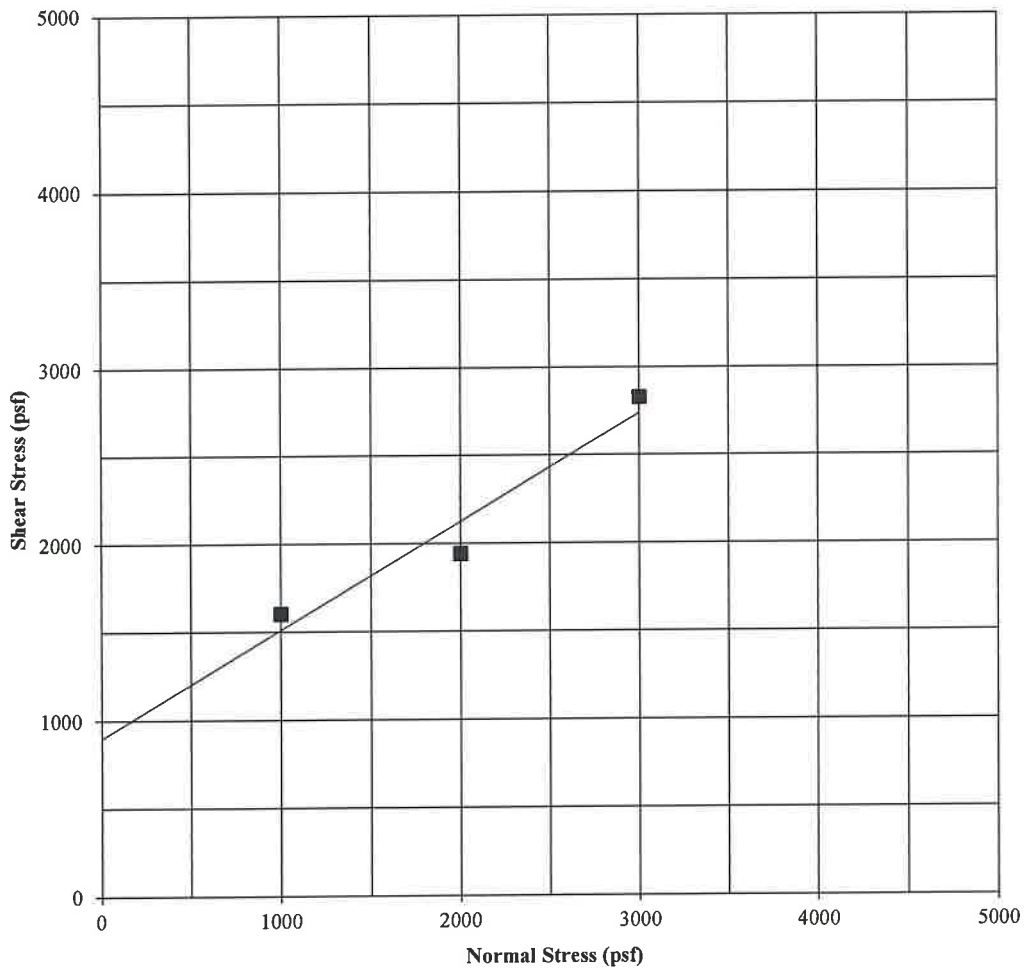
SAMPLE SOURCE: 8 @ 2.5'-3.5'

TESTING PERFORMED: Direct Shear (AASHTO T236) - Driven Ring Sample

SAMPLED BY: RAMM/Durot

RESULTS:

Dry Density (pcf):	107	Moisture Content (%):	9
Cohesion (psf):	900	Friction Angle (phi):	32



REMARKS: Samples not submerged prior to testing.

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: As noted below

TESTING PERFORMED: Sieve Analysis, Percent Passing No. 200 Sieve, Atterberg Limits
(ASTM C136, D1140, D4318)

SAMPLED BY: RAMM/Durot

RESULTS:

Sample Source	Atterberg Limits		Sieve Size - Accumulative Percent Passing											Soil Class.*
	LL	PI	200	100	50	30	16	8	4	3/4"	1"	2"	3"	
1 @ 0'-5'	29	12	36	48	61	71	77	80	83	90	100			SC
1 @ 5'-10'	46	28	37	47	63	76	83	87	90	100				SC
2 @ 0'-5'	31	16	44	56	69	78	83	88	85	94	94	100		SC
2 @ 5'-10'	22	6	43	56	77	92	95	97	98	100				SC-SM
3 @ 0'-5'	23	10	47	61	80	92	96	98	99	100				SC
3 @ 10'-15'	28	10	35	52	77	89	93	96	97	97	100			SC
4 @ 0'-5'	24	5	32	42	57	67	73	77	82	90	100			SC-SM
4 @ 10'-15'	26	12	19	30	47	67	79	85	91	100				SC
5 @ 0'-5'	26	9	35	46	62	73	77	82	86	100				SC
5 @ 10'-15'	N/A	NP	18	30	52	79	88	93	96	100				SM
6 @ 0'-5'	28	12	43	54	67	77	82	85	89	100				SC
6 @ 10'-15'	28	9	25	34	51	65	72	78	83	100				SC
7 @ 0'-5'	24	8	39	52	67	78	84	88	92	96	100			SC
7 @ 5'-10'	28	10	41	63	82	91	95	97	99	100				SC
8 @ 0'-5'	21	6	33	44	60	70	75	79	83	95	100			SC-SM
8 @ 5'-10'	30	11	45	56	70	79	84	88	91	100				SC
Composite:														
C1 @ .5'-2' &														
C1 @ 2'-5'	N/A	NP	11	15	22	30	38	45	54	96	100			GP-GM
C2 @ 1.5'-5'	29	10	32	43	56	69	78	87	94	100				SC
C3 @ 1.5'-5'	26	10	30	41	49	60	69	78	87	100				SC
C4 @ 2'-3'	27	12	32	40	50	60	68	74	81	94	100			SC
C5 @ 1.5'-5'	20	4	32	40	51	60	67	74	82	98	100			SC-SM
C6 @ 1.5'-5'	29	12	44	53	65	75	83	88	94	100				SC
C7 @ 1'-5'	25	8	30	40	53	65	74	81	88	100				SC
C8 @ 1'-5'	31	15	44	53	66	76	82	87	92	100				SC
C9 @ 1.5'-5'	39	23	37	47	61	73	80	86	92	100				SC
C10 @ 1.5'-5'	29	14	44	55	70	82	89	94	98	100				SC
C11 @ 1.5'-5'	24	8	37	45	55	63	68	73	78	98	100			SC

NP = Non-Plastic

* Unified Soil Classification System

LABORATORY TEST RESULTS

Date: 3-Aug-20

SAMPLE SOURCE: As noted below

TESTING PERFORMED: Percent Expansion (ASTM D4546)

SAMPLED BY: RAMM/Durot

RESULTS:

<u>Sample Source</u>	<u>Percent Expansion*</u>	<u>Remolded Dry Density (pcf)</u>	<u>Remolded Moisture Content (%)</u>
2 @ 0'-5'	3.0	112	11
3 @ 0'-5'	0.9	111	11
5 @ 0'-5'	0.9	114	10
6 @ 0'-5'	1.3	111	11
8 @ 0'-5'	0.3	114	10

* Based upon sample remolded to 95% of the estimated maximum dry density at 2% below the estimated optimum moisture content, with a surcharge pressure of 100 psf.

LABORATORY TEST RESULTS

Date: 3-Aug-20

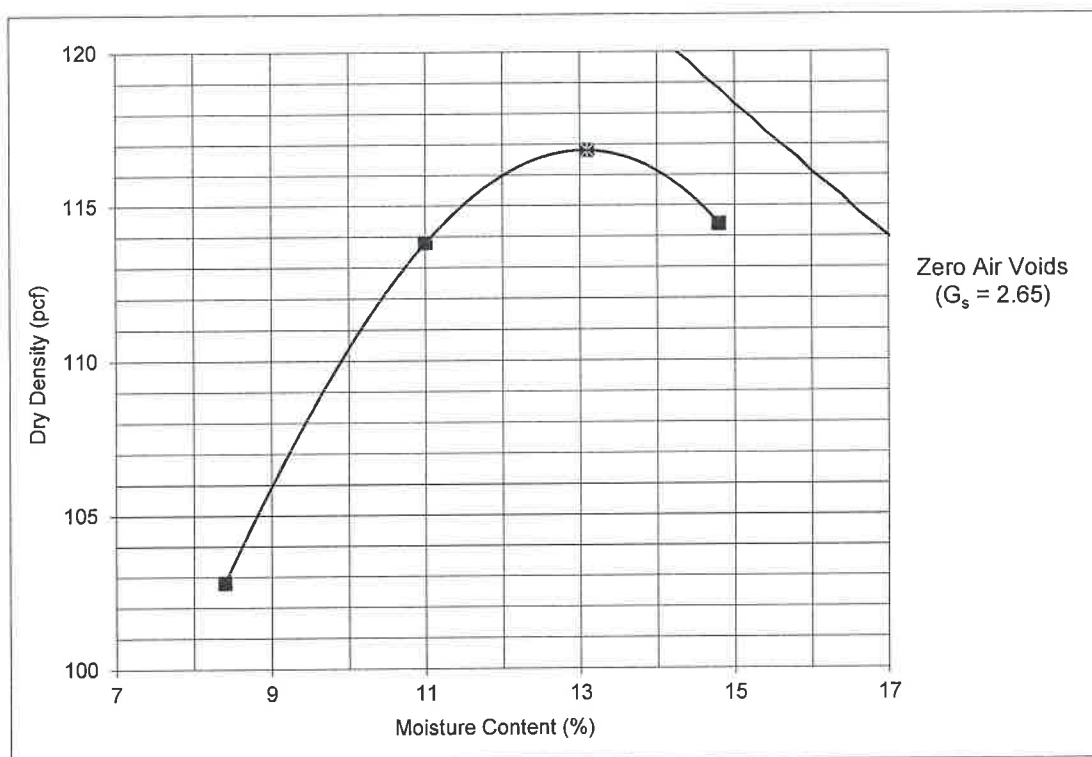
SAMPLE SOURCE: 1 @ 0'-5'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS:

Maximum Density (pcf) = 116.8 Optimum Moisture (%) = 13.1



LABORATORY TEST RESULTS

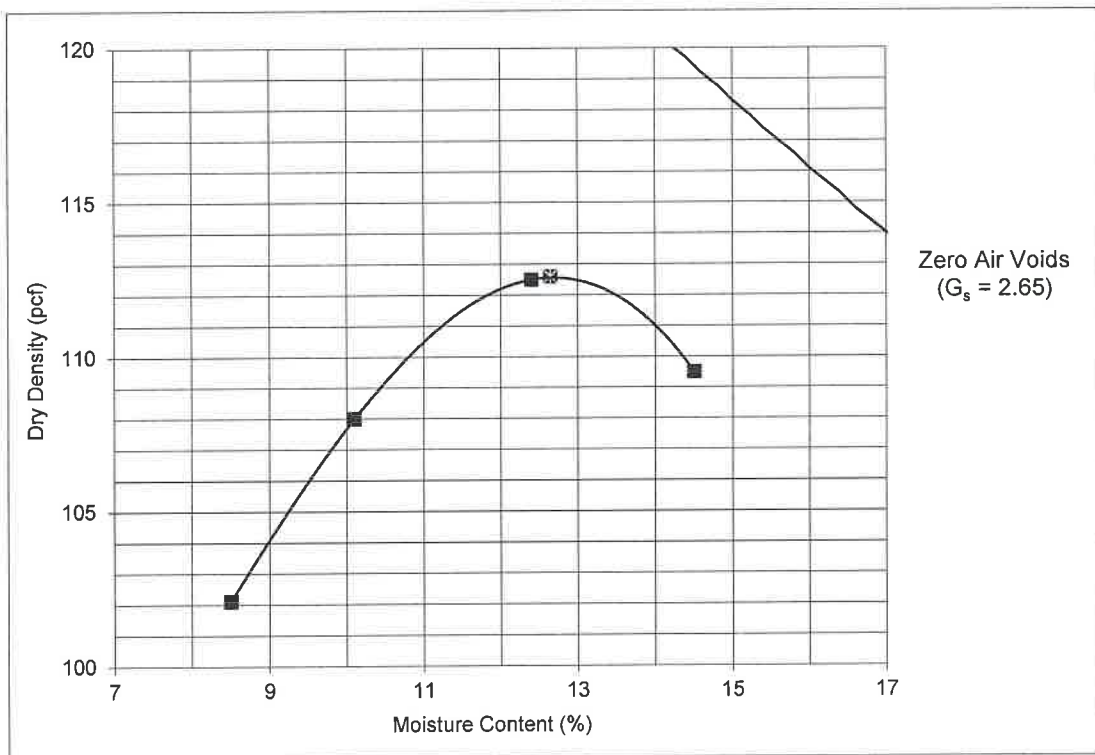
Date: 3-Aug-20

SAMPLE SOURCE: Composite: 2 @ 0'-5' & 2 @ 5'-10'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS: Maximum Density (pcf) = 112.6 Optimum Moisture (%) = 12.7



LABORATORY TEST RESULTS

Date:

3-Aug-20

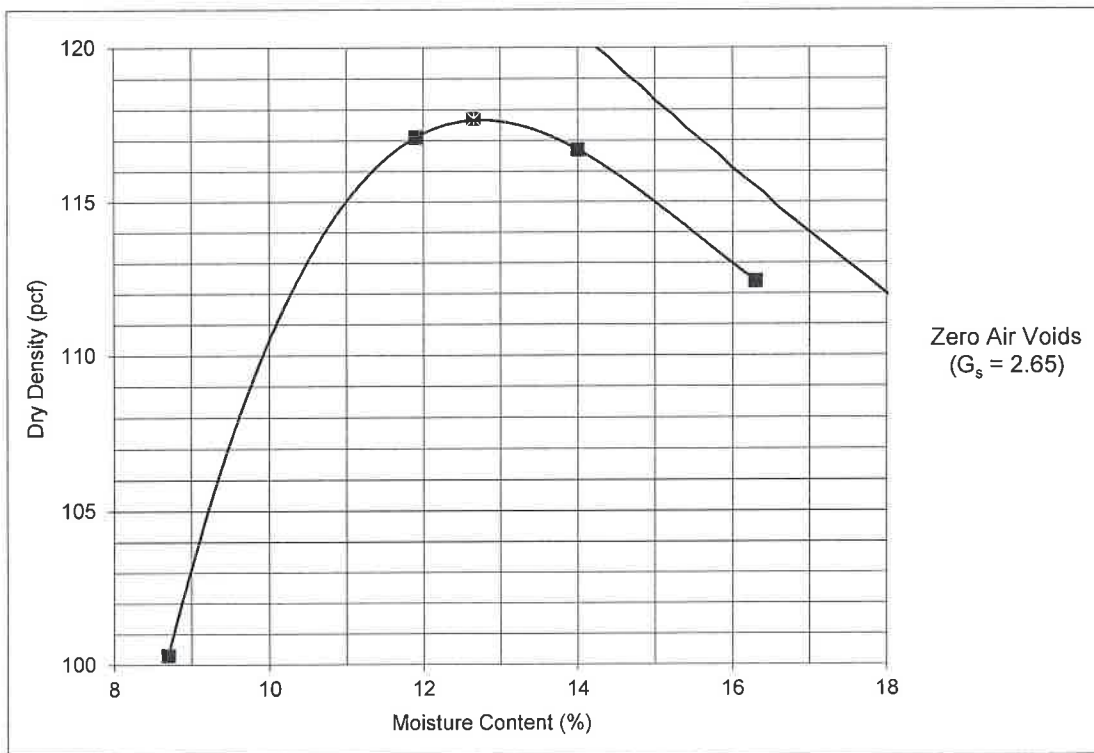
SAMPLE SOURCE: Composite: 3 @ 5'-10' & 3 @ 10'-15'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS:

Maximum Density (pcf) = 117.7 Optimum Moisture (%) = 12.7



LABORATORY TEST RESULTS

Date: 3-Aug-20

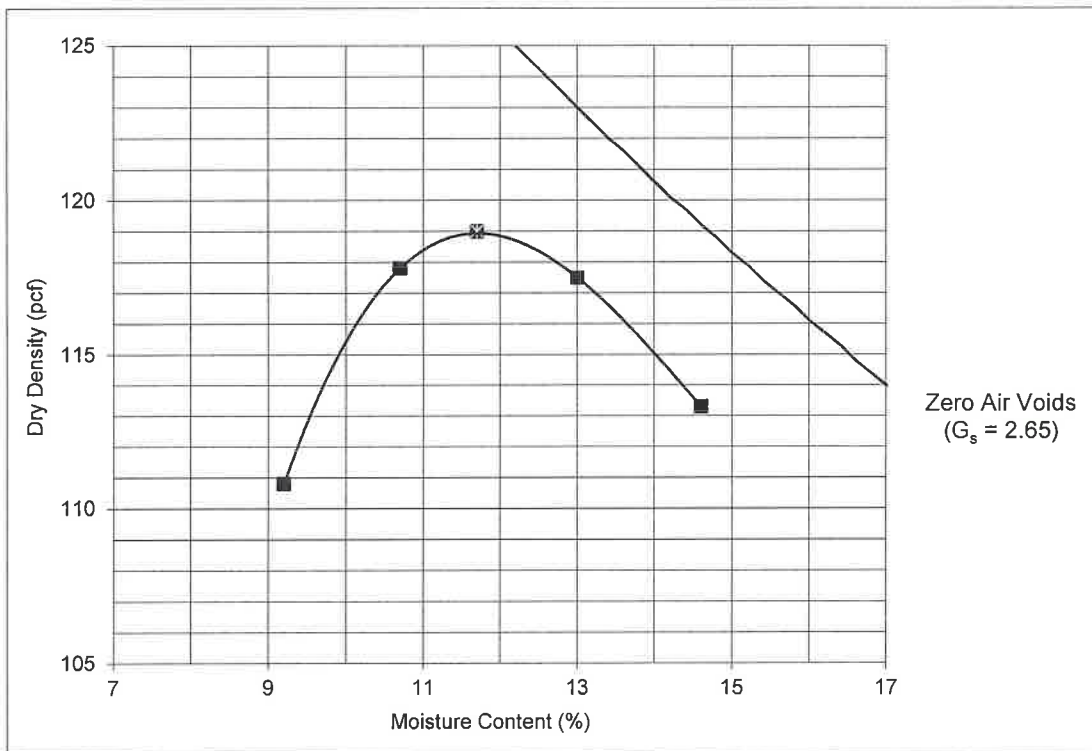
SAMPLE SOURCE: 4 @ 0'-5'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS:

Maximum Density (pcf) = 119.0 Optimum Moisture (%) = 11.7



LABORATORY TEST RESULTS

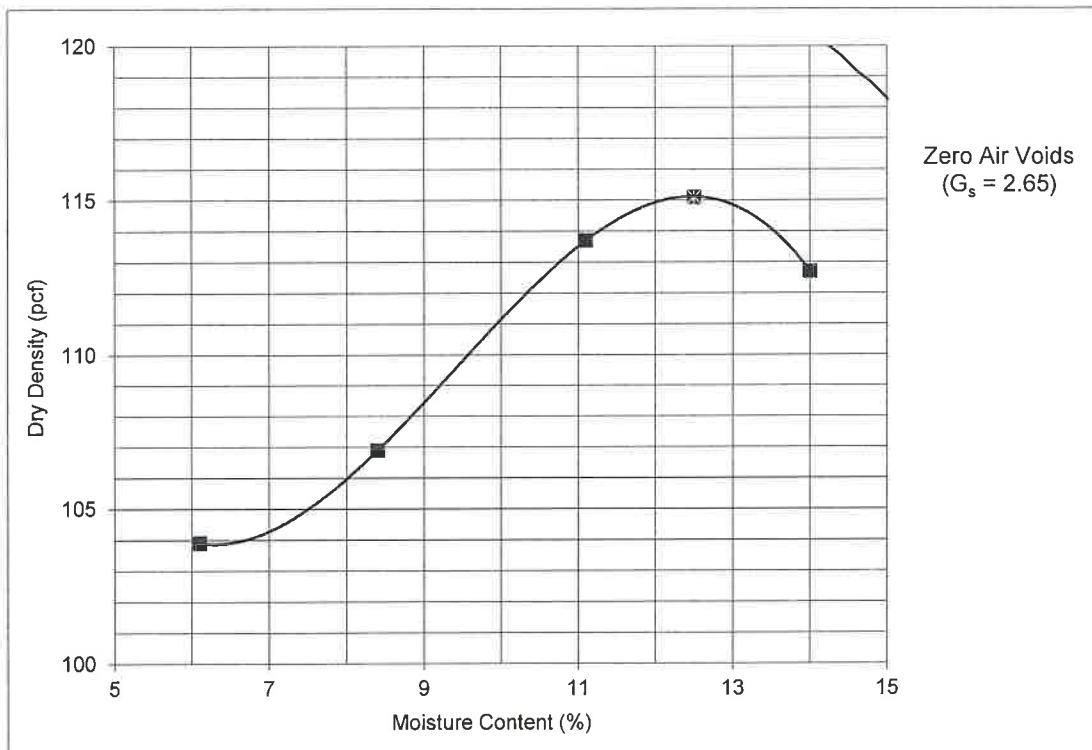
Date: 3-Aug-20

SAMPLE SOURCE: Composite: 5 @ 0'-5' & 5 @ 5'-10'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS: Maximum Density (pcf) = 115.1 Optimum Moisture (%) = 12.5



LABORATORY TEST RESULTS

Date: 3-Aug-20

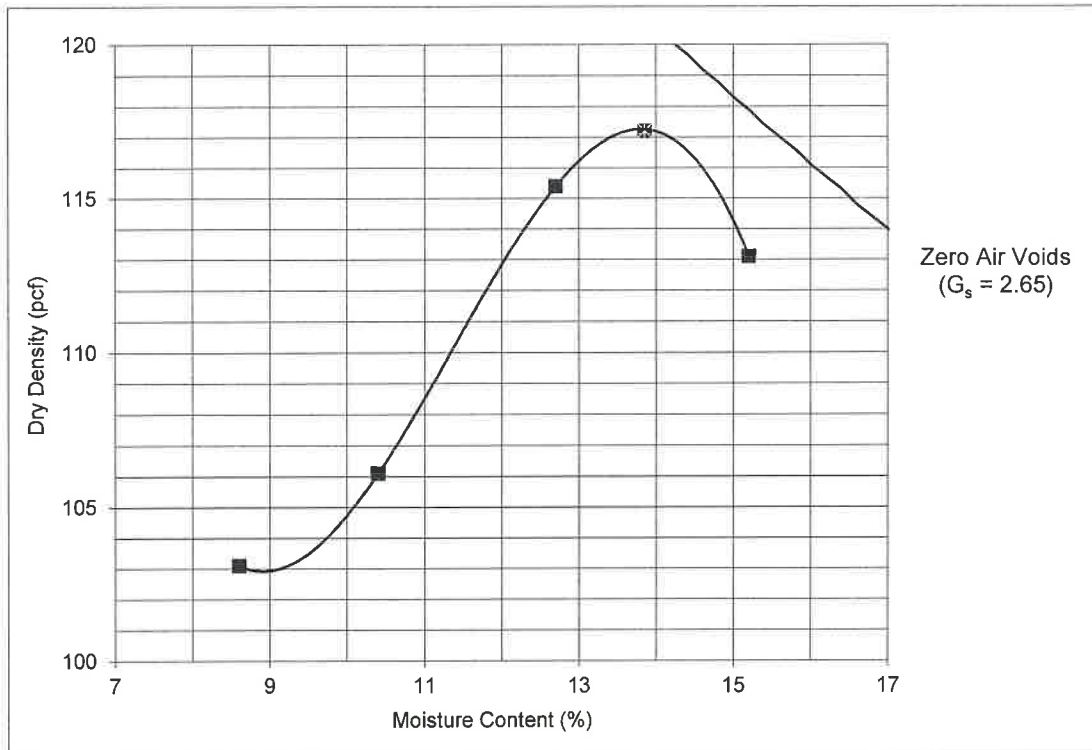
SAMPLE SOURCE: Composite: 6 @ 5'-10' & 6 @ 10'-15'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS:

Maximum Density (pcf) = 117.2 Optimum Moisture (%) = 13.9



LABORATORY TEST RESULTS

Date:

3-Aug-20

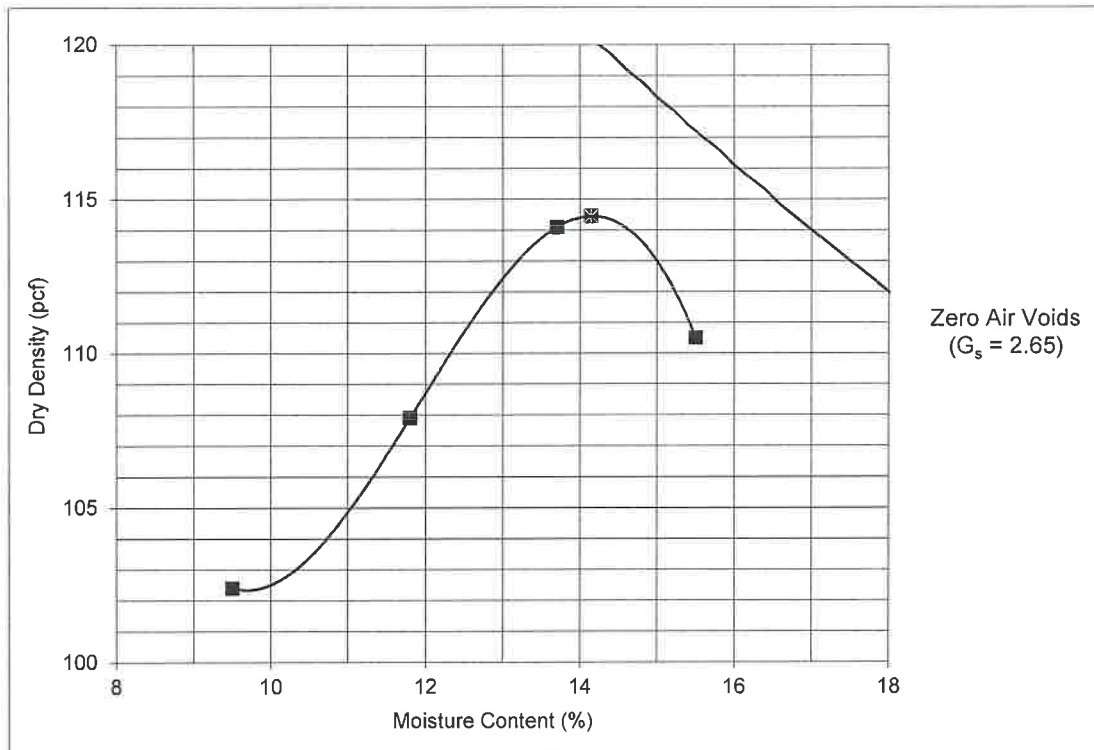
SAMPLE SOURCE: 7 @ 0'-5'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS:

Maximum Density (pcf) = 114.5 Optimum Moisture (%) = 14.2



LABORATORY TEST RESULTS

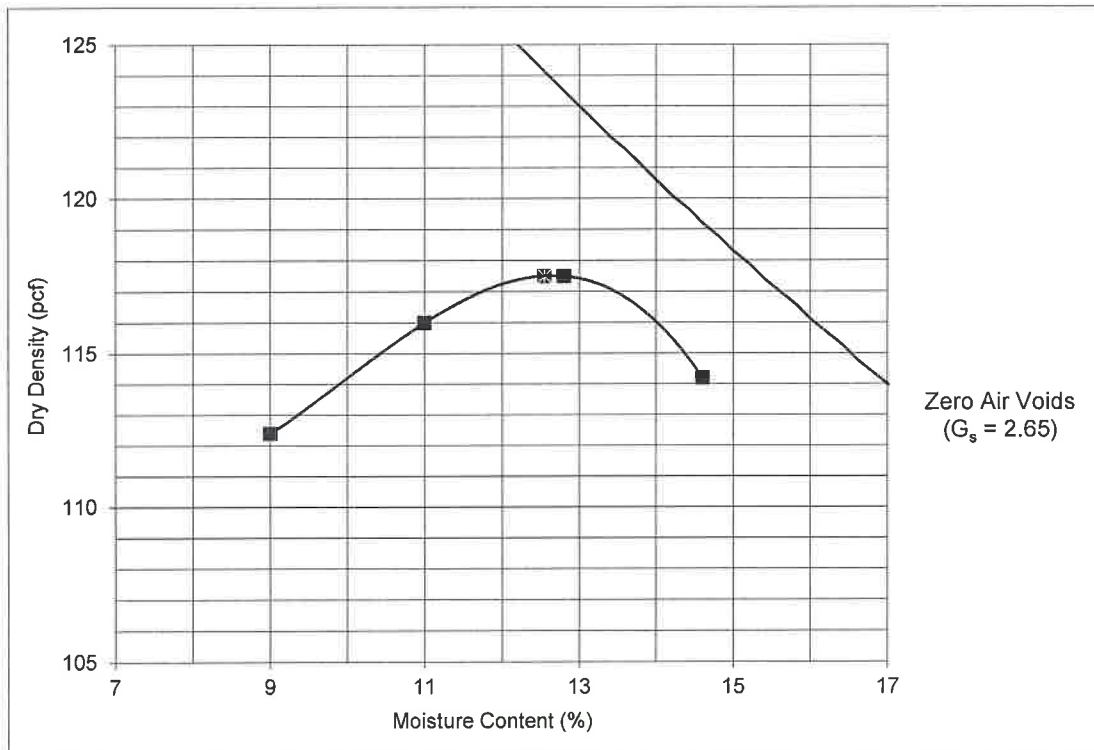
Date: 3-Aug-20

SAMPLE SOURCE: Composite: 8 @ 0'-5' & 8 @ 5'-10'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Durot

RESULTS: Maximum Density (pcf) = 117.5 Optimum Moisture (%) = 12.6

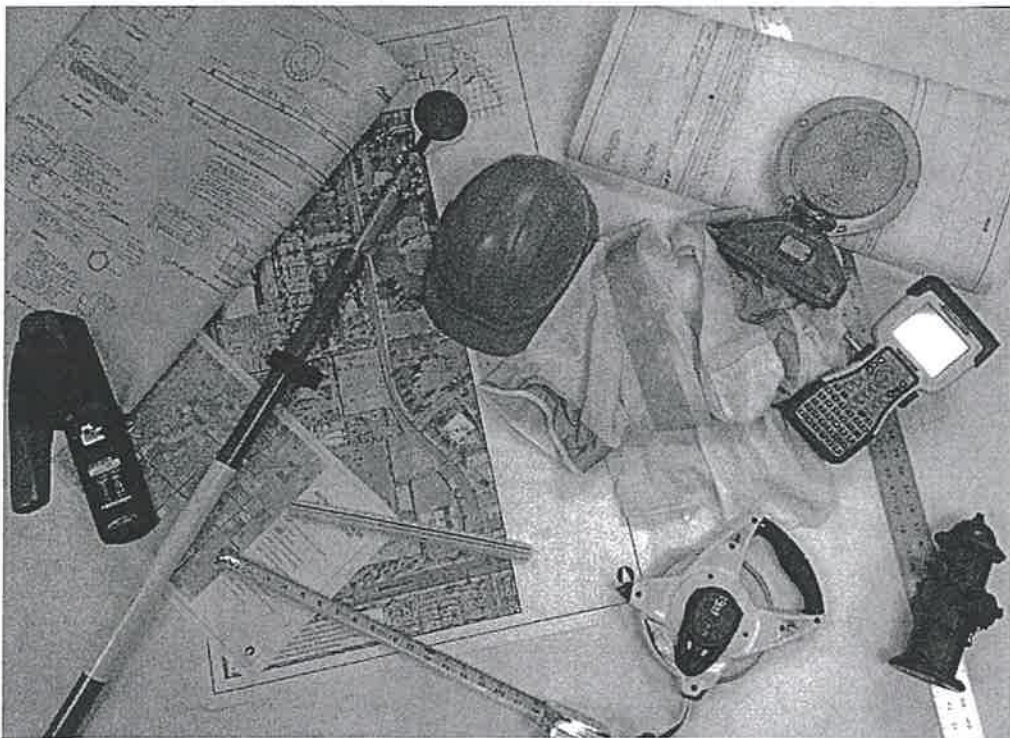


**APPENDIX C
DESIGN CHARTS
PARTS OF
CITY OF CHANDLER
STANDARD DETAILS
AND SPECIFICATIONS
(JANUARY 2020)**



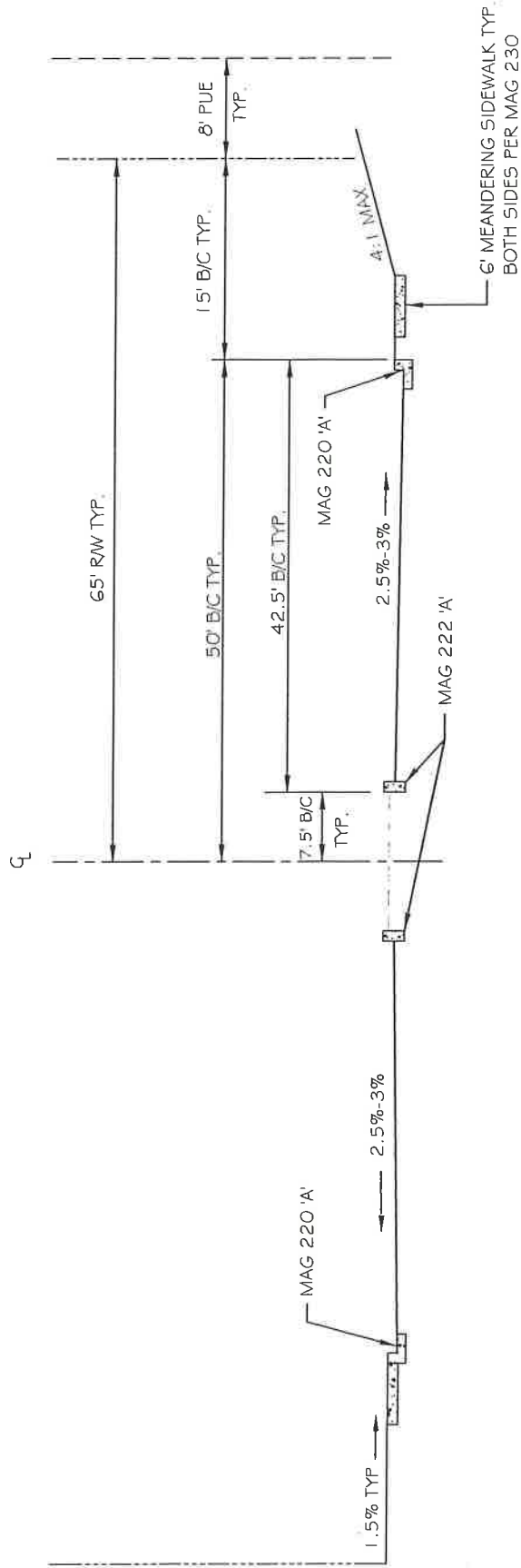
R·A·M·M

STANDARD DETAILS AND SPECIFICATIONS



CHANDLER
a r i z o n a

January 2020



NOTES:

1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
3. ASPHALTIC CONCRETE PAVEMENT:
 - A. 3" THICK A19 OR A25 EVAC BASE COURSE WITH 2" OF A12.5 EVAC SURFACE COURSE.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO EVAC AND MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
5. MEDIAN END SHALL BE RAMP PER COC STANDARD DETAIL C-225.
6. MEDIAN LANDSCAPE AREA SHALL BE PER COC STANDARD DETAIL C-807.

DETAIL NO.

C-203
NTS



CITY OF
CHANDLER
STANDARD
DETAIL

**MAJOR ARTERIAL STREET
TYPICAL CROSS SECTION**

APPROVED:

[Signature]

CITY ENGINEER

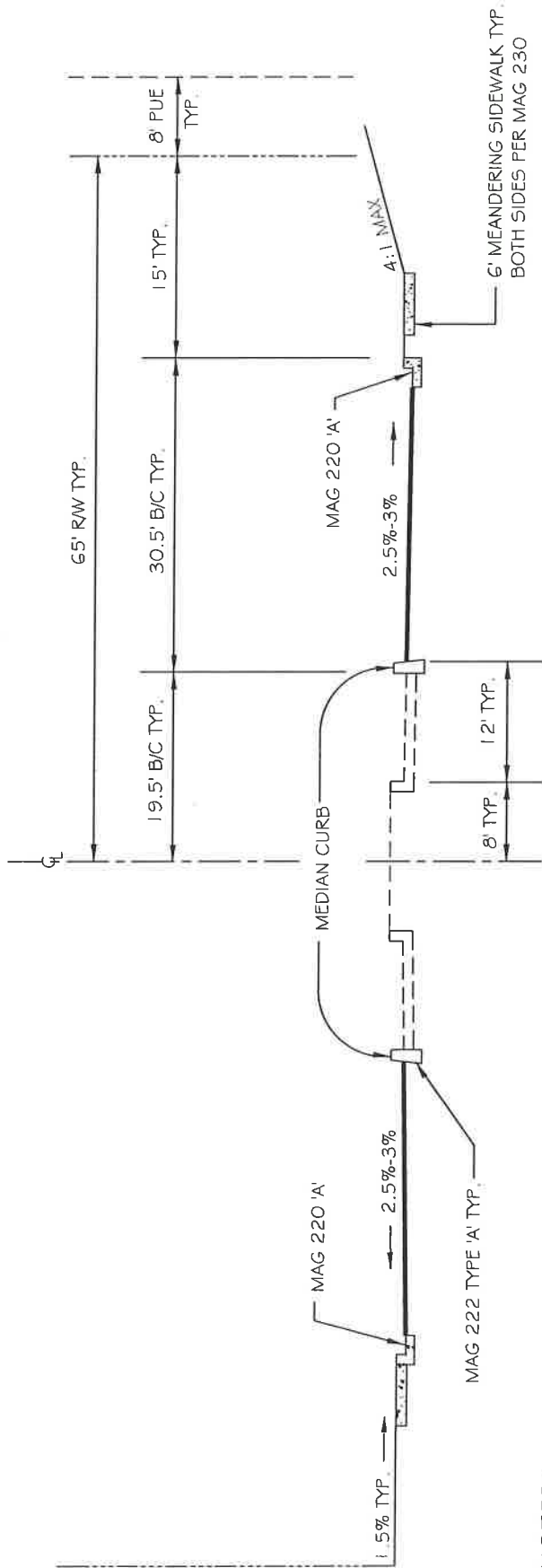
DATE:

05-10-2018

DETAIL NO.

C-203

NTS



NOTES:

1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
3. ASPHALTIC CONCRETE PAVEMENT:
 - A. 3" THICK A19 OR A25 EVAC BASE COURSE WITH 2" OF A12.5 EVAC SURFACE COURSE.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO EVAC AND MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
5. MEDIAN LANDSCAPE AREA SHALL BE PER COC STANDARD DETAIL C-807.
6. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

DETAIL NO.

C-204

NTS

CITY OF
CHANDLER
STANDARD
DETAIL



**PHASED MAJOR ARTERIAL STREET
TYPICAL CROSS SECTION**

APPROVED:

[Signature]

CITY ENGINEER

DATE:

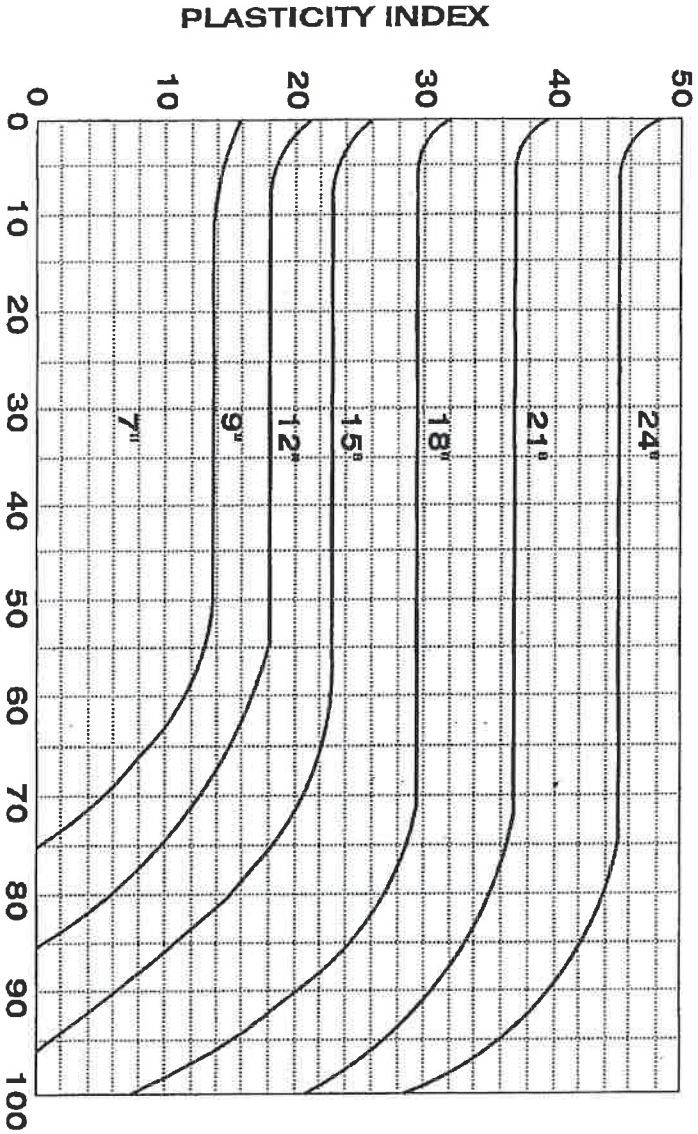
05-10-2018

DETAIL NO.

C-204

NTS

BASE THICKNESS CHART




NOTES:

1. TOP 6" OF BASE SHALL BE ABC. BALANCE SHALL BE ABC OR SELECT MATERIAL.
2. MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 5" (MIN.) BIT. SURFACE.

DETAIL NO. **C-239**
NTS

 CITY OF CHANDLER STANDARD DETAIL

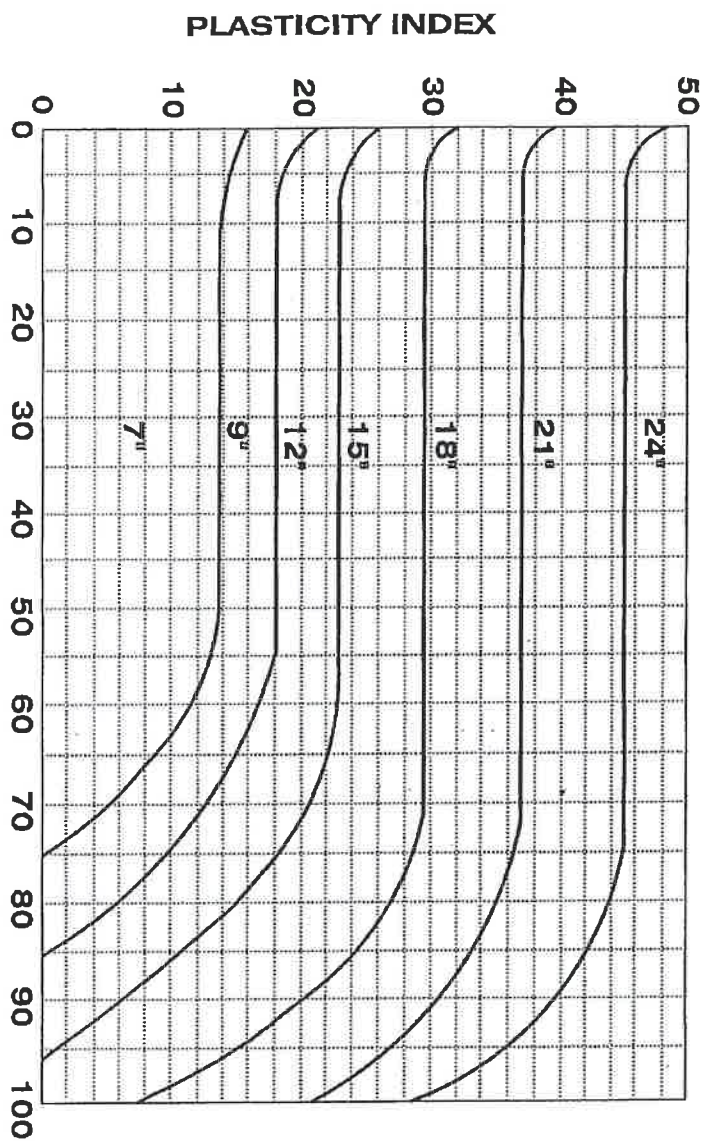
DEPTH OF BASE COURSE MAJOR & MINOR ARTERIALS

APPROVED: 
CITY ENGINEER

DATE: 01/06/09

DETAIL NO. **C-239**
NTS

BASE THICKNESS CHART



NOTES:

1. TOP 6" OF BASE SHALL BE ABC. BALANCE SHALL BE ABC OR SELECT MATERIAL.
2. MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 5" (MIN.) BIT. SURFACE.

DETAIL NO. C-239 NTS	 CITY OF CHANDLER STANDARD DETAIL	DEPTH OF BASE COURSE MAJOR & MINOR ARTERIALS
APPROVED: _____ DATE: <u>01/06/09</u>	CITY ENGINEER	DETAIL NO. C-239 NTS

APPENDIX E

Western Burrowing Owl Awareness Flyer



Western Burrowing Owl Awareness

ADOT Environmental Planning Group

1611 W. Jackson St- Mail Drop EM02

Phoenix, AZ 85007

The purpose of this flyer is to provide ADOT employees and contractors, working on roadside projects, with basic knowledge to reduce the risk of incidental take of Western Burrowing Owls.

Legal Status:

Western Burrowing Owls (*Athene cunicularia*) are protected under the Federal Migratory Bird Treaty Act of 1918. All migratory birds and their parts are fully protected. They are also protected under Arizona State Law in Title 17-101, Title 17-235, and Title 17-236.

What to look for:

- Description– small, ground-dwelling owl.
- Length– 19.5-25.0 cm (7.68-9.85 inches)
- Wingspan– 58.42 cm (23.0 inches)
- Mass– about 150 grams
- Males are typically slightly larger than females.
- Round head, lacks ear tufts.
- Distinct oval facial ruff, framed by a broad, puffy white eyebrow.
- Eyes contain a bright yellow iris.

Where are owls found?

- Dry, open, short grass, treeless plains.
- Dependent on fossorial mammals. (ground squirrels, prairie dogs, badgers, etc.) to construct burrows.
- Human dominated landscapes: golf courses, airports, agricultural fields.

Identifying an active burrow:

- Owls use burrows constructed by ground squirrels, badgers, coyotes and tortoises. They can also use pipes, culverts, and ditches.
- Presence of excrement (whitewash) near entrance to burrow.
- Burrowing owls frequently decorate entrance of burrows with cow or horse manure, feathers, vegetation and trash items.

How to avoid them:

- Scan ahead prior to arriving at a sign location.
- If burrowing owls are observed within the project area, stop and move at least 100 feet beyond the owl or occupied burrow before resuming work.

If you think your work may potentially impact a Burrowing Owl or active burrow, please stop.

Move at least 100 feet from the animal or burrow before resuming work.

If you have any questions or think you have a borrowing owl or active burrow on your work site please contact:

Joshua Fife, Biologist, ADOT Environmental Planning Group, jfife@azdot.gov

Office: (602)712-6819, Mobile: (602) 622-9622, EPG General: (602)712-7767

Source: Arizona Game and Fish Department Animal Abstract: Western Burrowing Owl. Heritage Data Management System

(revised November 25, 2013)

EXHIBIT D

GIS / GPS DATA DELIVERY REQUIREMENTS

GIS / GPS Data Delivery Requirements

Contractor must provide survey grade GPS / GIS data, meeting the following requirements for all facilities to be owned and/or operated by the City of Chandler.

a) ESRI File Geodatabase format:

All GPS point data, along with corresponding GIS Attribute data, must be submitted in ESRI File Geodatabase format. The City of Chandler will provide a copy of the File Geodatabase in ESRI ArcGIS format. Please submit your request through the Project Manager.

b) Data dictionary and Attribute data:

Attribute data should be provided for each of the GPS'd Utility Feature listed in Section 'd' below. All Attribute data should conform to the ESRI File Geodatabase format, provided by the City. A copy of the data dictionary is also attached here for reference

c) Coordinate System:

Horizontal Datum: Arizona State Plane Coordinates, Central Zone NAD83 (HARN)
Vertical Datum: NAVD88

d) Point Data for GPS:

1) Water System Features:

- Water main location (top of pipe), size and material (one (1) coordinate provided every 100 feet minimum) and at fittings.
- Water fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer,
- Saddle, Other.
- Water valve location (center of valve box cover), size and type.
- Fire hydrant location (top of hydrant), manufacturer and year.
- Water service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- Water blow-off and air release valve location (center of cover), size, type and manufacturer.
- Water manhole or vault location (center of cover), size and type.

2) Waste Water System Features:

- Sewer manhole and cleanout location (center of cover), size, material, and cover type.
- Sewer gravity main location (invert of pipe), size, material and flow direction (from) at all manholes, cleanouts and structures.
- Sewer service line location, size and material (at connection to main, and termination at cleanout, or stub out at edge of the easement or ROW).
- Sewer force main location (top of pipe), size, and material (one (1) coordinate provided every 100 feet minimum) and at fittings.

- Sewer force main (and gravity) fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Linestop, Reducer, Saddle, Wye, Other
- Sewer force main valve location (center of valve box cover), size and type.
- Sewer force main air release valve location (center of cover), size, type and manufacturer.
- Sewer force main manhole or vault location (center of cover), size and material.
- Sewer structure (center of structure), type (diversion, junction box)

3) Reclaimed Water System Features:

- Reclaimed main location (top of pipe), size, and material (one (1) coordinate provided every 100 feet minimum) and at fittings.
- Reclaimed fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Linestop,
- Reducer, Saddle, Other.
- Reclaimed valve location (center of valve box cover), size and type.
- Reclaimed service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- Reclaimed blow-off and air release valve location (center of cover), size, type and manufacturer.
- Reclaimed manhole or vault location (center of cover), size and type.

4) Storm Water System Features:

- Storm manhole and cleanout location (center of cover), size, material, and cover type.
- Storm gravity main location (invert of pipe), size, material, and flow direction (from) at all manholes, cleanouts and structures.
- Storm structure location (center of structure), type and category including: Drywell, Catch Basin, Scupper, Bubbler Box, and Collection Vault.

5) Standard GPS Metadata on all points collected: Date, Time, Height, Horiz_Precision, Vert_Precision, Northing, Easting, Surveyor, Datafile, and Comments

e) Electronic Data Submittal:

Each submittal must consist of

- 1) ESRI – ArcGIS Geodatabase with cumulative data and attributes, and
- 2) Construction plans with collected utilities clearly redlined and changes marked

The frequency of data submittal will be every two weeks after water, sewer, reclaim or storm assets go into the ground. Submittals can be emailed to: GIS@chandleraz.gov

DATA DICTIONARY
FOR
WATER, SEWER, RECLAIM & STORM

DATA DICTIONARY:
WATER

Water Fitting				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	20	WS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	WS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	WS_SPATIALSOURCE_STD
MATERIAL	MATERIAL	String	20	
DIAMETER1	DIAMETER1	String	8	RWS_FITTING_DIAMETER
DIAMETER2	DIAMETER2	String	8	
ROTATION	ROTATION	Double	8	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
GPS_COMMENT	GPS_COMMENT	String	30	
TYPE	TYPE	String	30	WS_FITTING_TYPE
BEND	BEND	String	20	WS_FITTING_BEND

Water Hydrant				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	Feature Owner	String	25	WS_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	String	25	WS_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	String	25	WS_SPATIALSOURCE_STD
BARRELDIAMETER	Barrel Diameter	Double	8	
LARGENOZZLEDIAMETER	Large Nozzle Diameter	Double	8	
SMALLNOZZLEDIAMETER	Small Nozzle Diameter	Double	8	
OUTLETCONFIGURATION	Outlet Configuration	Double	8	
SEATDIAMETER	Seat Diameter	Double	8	
MANUFACTURER	Manufacturer	String	25	WS_HYD_MANUFACTURER
YEARMANUFACTURED	Manufacture Year	String	25	
HASLOCK	Has Lock ?	String	25	GIS_BOOLEAN_YES_NO
COLOR	Color	String	25	
ROTATION	Symbol Rotation	Double	8	
GPSOID	GPS ObjectID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	25	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	String	25	
VERT_PREC	VERT_PREC	String	25	
NORTHING	NORTHING	String	25	
EASTING	EASTING	String	25	
DATAFILE	DATAFILE	String	25	
GPS_COMMENT	GPS_COMMENT	String	50	

WATER VALVE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATURE OWNER	String	20	RWS_SYSVAL_FUNCTION
LIFECYCLESTATUS	LIFECYCLE STATUS	String	20	WS_SYSVAL_LIFECYCLESTATUS
SPATIALSOURCE	SPATIAL SOURCE	String	20	WS_SYSVAL_SPATIALSOURCE
TYPE	TYPE	String	25	RWS_SYSVAL_TYPE
VALVETYPE	VALVE TYPE	String	10	RWS_SYSVAL_VALVETYPE
GROUNDTYPE	GROUNDTYPE	String	25	WS_SYSVAL_GROUNDTYPE
DIAMETER	Diameter	String	8	WS_SYSVAL_DIAM
GPSOID	GPS OBJECTID	Integer	4	
GPS_DATE	GPS DATE	Date	8	
GPS_TIME	GPS TIME	String	10	
GPS_HEIGHT	GPS HEIGHT	Double	8	
HORZ_PREC	HORZ PREC	Double	8	
VERT_PREC	VERT PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS COMMENT	String	30	
WO_CAT_CODE	WO CAT CODE	String	10	
WO_CAT	WO CAT	String	25	

Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	20	WS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	WS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	WS_SPATIALSOURCE_STD
ACCESSDIAMETER	ACCESSDIAMETER	String	8	
ACCESSTYPE	ACCESSTYPE	String	20	
GROUNDTYPE	GROUNDTYPE	String	20	WS_SYSVAL_GROUNDTYPE
COVERMATERIAL	COVERMATERIAL	String	10	
COVERTYPE	COVERTYPE	String	8	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	30	

WATER MISC PNT		This feature is used for any miscellaneous information		
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	50	
NOTES	NOTES	String	150	
SIZE	SIZE	Double	8	

Water Domains:

Domain name	WS_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
FUTURE	FUTURE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN
Domain name	WS_SYSVAL_SPATIALSOURCE
APPROVED PLANS	APPROVED PLANS
ASBUILT	ASBUILT
DESIGN	DESIGN
GPS	GPS
HYDRMAINT	HYDRMAINT
ORTHOPHOTO	ORTHOPHOTO
TM7	TM7
UNKNOWN	UNKNOWN
Domain name	WS_HYD_MANUFACTURER
AMERICANDARLING	AMERICANDARLING
AVK	AVK
CLOW	CLOW
DRESSER	DRESSER
GREENBERG	GREENBERG
KENNEDY	KENNEDY
MUELLER	MUELLER
PACIFIC	PACIFIC
UNKNOWN	UNKNOWN
WATEROUS	WATEROUS

Domain name	WS_FEATUREOWNER
COC	Chandler
COG	Gilbert
COM	Mesa
COP	Phoenix
COT	Tempe
COUNTY	Maricopa County
GOULD	Gould
GRIC	GRIC
INTEL	Intel
MICROCHIP	Microchip
MOTOROLA	Motorola
PRIVATE	Private
SRP	SRP
SRVWUA	SRVWUA
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_LIFECYCLESTATUS
FUTURE	FUTURE
UNKNOWN	UNKNOWN
INACTIVE	INACTIVE
ACTIVE	ACTIVE
REMOVED	REMOVED
ABANDONED	ABANDONED

Domain name	WS_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL
Domain name	WS_SYSVAL_DIAM
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48
54	54

Domain name	WS_FITTING_TYPE
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
OTHER	OTHER
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE
Domain name	WS_SYSVAL_GROUNDTYPE
CONCRETE	CONCRETE
ASPHALT	ASPHALT
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN
Domain name	WS_SPATIALSOURCE_STD
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

DATA DICTIONARY:
SEWER

SEWER CLEANOUT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	WW_SPATIALSOURCE
RIM_ELEV	RIM_ELEV	Double	8	
INV_ELEV	INV_ELEV	Double	8	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	30	

SEWER CONTROL VALVE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
TYPE	TYPE	String	25	
FEATUREOWNER	FEATUREOWNER	String	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	WW_SPATIALSOURCE
DIAMETER	DIAMETER	String	8	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	30	

SEWER_FITTING				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	WW_SPATIALSOURCE
MATERIAL	MATERIAL TYPE	String	20	
TYPE	TYPE	String	30	
BEND	BEND	String	20	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	30	
SIZE_	SIZE OF FITTING	String	20	

SEWER_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	WW_SPATIALSOURCE
LID	LID TYPE	String	20	
TYPE	TYPE	String	20	WW_MH_TYPE
COVER_MATERIAL	COVER_MATERIAL	String	25	WW_MH_COVER_MATERIAL
COVER_HOLE	COVER_HOLE	String	25	WW_MH_COVER_HOLE
COVER_SIZE	COVER_SIZE	String	20	WW_MH_COVER_SIZE
RIM_ELEV	RIM_ELEV	Double	8	
INV_ELEV	INV_ELEV	Double	8	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	30	
LINER	LINER	String	50	WW_MH_LINER
WALL_MATERIAL	WALL_MATERIAL	String	50	WW_MH_WALL_MATERIAL

SEWER_MISC		For any Miscellaneous features		
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
SPATIALSOURCE	SPATIALSOURCE	String	20	
MATERIAL	MATERIAL	String	20	
TYPE	TYPE	String	30	
BEND	BEND	String	20	
NOTES	NOTES	String	255	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
DATAFILE	DATAFILE	String	20	
GPS_COMMENT	GPS_COMMENT	String	30	
SIZE_	SIZE_	String	20	

Sewer Domains:

Domain name	WW_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
TOG	TOG
UNKNOWN	UNKNOWN
Domain name	WW_SPATIALSOURCE
GPS	GPS
ASBUILT	ASBUILT
UNKNOWN	UNKNOWN
Domain name	WW_MH_COVER_HOLE
UNKNOWN	UNKNOWN
SEALED	SEALED
Domain name	WW_MH_LINER
CAST-IN-PLACE	CAST-IN-PLACE
CEMENTITIOUS	CEMENTITIOUS
COMPOSITE	COMPOSITE
CURED-IN-PLACE	CURED-IN-PLACE
EPOXY	EPOXY
FR PLASTIC INSERT	FR PLASTIC INSERT
FR POLYMER INSERT	FR POLYMER INSERT
INSERT	INSERT
UNKNOWN	UNKNOWN
Domain name	WW_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
PULLED	PULLED
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_MATERIAL
ALUMINUM	ALUMINUM
CASTIRON	CASTIRON
HDPE COMPOSITE - CAP	HDPE COMPOSITE - CAP
HDPE COMPOSITE - EJ	HDPE COMPOSITE - EJ
HDPE COMPOSITE - HD20	HDPE COMPOSITE - HD20
STEEL	STEEL
UNKNOWN	UNKNOWN
Domain name	WW_MH_COVER_SIZE
0	Unknown
4	4
6	6
8	8
22	22
24	24
26	26
28	28
30	30
32	32
38	38
48	48
60	60
Domain name	WW_MH_WALL_MATERIAL
NONE	NONE
COMPOSITE	COMPOSITE
UNKNOWN	UNKNOWN
CONCRETE	CONCRETE
POURED	POURED
TLOCK	TLOCK
PRECAST	PRECAST
BRICK	BRICK

Domain name	WW_MH_TYPE
0	UNKNOWN
1	SANITARY SEWER
2	ARV

DATA DICTIONARY:
RECLAIM

RECLAIM_FITTING				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	RWS_SPATIALSOURCE
MATERIAL	MATERIAL	String	20	RWS_MAIN_OR_SERVICE_MATERIAL
DIAMETER1	DIAMETER1	String	8	RWS_FITTING_DIAMETER
DIAMETER2	DIAMETER2	String	8	RWS_FITTING_DIAMETER
TYPE	TYPE	String	30	RWS_FITTING_TYPE
BEND	BEND	String	20	RWS_FITTING_BEND
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
GPS_COMMENT	GPS_COMMENT	String	30	

RECLAIM_MISC_STRUCT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
TYPE	SUBTYPE	String	20	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
GPS_COMMENT	GPS_COMMENT	String	50	
NOTES	Notes	String	150	

RECLAIM_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	20	RWS_SPATIALSOURCE
ACCESSDIAMETER	ACCESSDIAMETER	String	8	RWS_GROUNDTYPE
GROUNDTYPE	GROUNDTYPE	String	20	
COVERMATERIAL	COVERMATERIAL	String	10	
COVERTYPE	COVERTYPE	String	8	
GPSOID	GPSOID	Integer	4	
GPS_DATE	GPS_DATE	Date	8	
GPS_TIME	GPS_TIME	String	10	
GPS_HEIGHT	GPS_HEIGHT	Double	8	
HORZ_PREC	HORZ_PREC	Double	8	
VERT_PREC	VERT_PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
GPS_COMMENT	GPS_COMMENT	String	30	

RECLAIM SYSTEM VALVE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATURE OWNER	String	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLE STATUS	String	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIAL SOURCE	String	20	RWS_SPATIALSOURCE
TYPE	TYPE	String	25	RWS_SYSVAL_TYPE
VALVETYPE	VALVE TYPE	String	10	RWS_SYSVAL_VALVETYPE
FUNCTION	FUNCTION	String	25	RWS_SYSVAL_FUNCTION
GROUNDTYPE	GROUNDTYPE	String	25	RWS_SYSVAL_GROUNDTYPE
GPSOID	GPS OBJECTID	Integer	4	
GPS_DATE	GPS DATE	Date	8	
GPS_TIME	GPS TIME	String	10	
GPS_HEIGHT	GPS HEIGHT	Double	8	
HORZ_PREC	HORZ PREC	Double	8	
VERT_PREC	VERT PREC	Double	8	
NORTHING	NORTHING	Double	8	
EASTING	EASTING	Double	8	
GPS_COMMENT	GPS COMMENT	String	30	
WO_ZONE	WO ZONE	Double	8	
DIAMETER	DIAMETER	Double	8	RWS_SYSVAL_DIAM
WO_CAT_CODE	WO_CAT_CODE	String	10	

Reclaim Domains:

Domain name	RWS_SYSVAL_VALVETYPE
BALL	BALL
BUTTERFLY	BUTTERFLY
GATE	GATE
INSERTA	INSERTA
UNKNOWN	UNKNOWN
Domain name	RWS_SYSVAL_FUNCTION
ARV	ARV
INLINE	INLINE
PUMPOUT	PUMPOUT
PUMPSTATION	PUMPSTATION
SERVICE	SERVICE
STUBOUT	STUBOUT
UNKNOWN	UNKNOWN
VAULT	VAULT
Domain name	RWS_SYSVAL_TYPE
ARV	ARV
BLOWOFF	BLOWOFF
STANDARD	STANDARD
Domain name	RWS_FEATUREOWNER
COC	CHANDLER
COM	MESA
INTEL	INTEL
OCA	OCA
OMG	OMG
PRIVATE	PRIVATE
SRP	SRP
TOG	GILBERT
UNKNOWN	UNKNOWN

Domain name	RWS_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL
Domain name	RWS_MAIN_OR_SERVICE_MATERIAL
AC	AC
CC	CC
CI	CI
CU	COPPER
DI	DI
PVC	PVC
UNKNOWN	UNKNOWN
Domain name	RWS_FITTING_TYPE
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
MECHANICAL JOINT	MECHANICAL JOINT
OTHER	OTHER
RECHARGE WELL	RECHARGE WELL
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

Domain name	RWS_SPATIALSOURCE
ASBUILT	ASBUILT
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN
Domain name	RWS_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN
Domain name	RWS_SYSVAL_DIAM
1.5	1.5
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48
9999	UNKNOWN

Domain name	RWS_GROUNDTYPE
ASPHALT	ASPHALT
CONCRETE	CONCRETE
DIRT	DIRT
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_GROUNDTYPE
ASPHALT	ASPHALT
CONCRETE	CONCRETE
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN

Domain name	RWS_FITTING_DIAMETER
0.63	0.63
0.75	0.75
1	1
1.25	1.25
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10
12	12
15	15
16	16
18	18
20	20
24	24
30	30
36	36
42	42
48	48

DATA DICTIONARY:
STORM

SWS_DRAIN_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER_1
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	25	SWS_SPATIALSOURCE
STRUCTURE_TYPE	STRUCTURE_TYPE	SmallInteger	2	SWS_STRUCTURE_TYPE
CHANDLER_NAME	CHANDLER_NAME_ON_LID	String	5	GIS_BOOLEAN_YES_NO
DIAMETER	DIAMETER	SmallInteger	2	SWS_SDMH_SIZE
VENT_HOLE	VENT_HOLE	String	30	GIS_BOOLEAN_YES_NO
ACCESS_OPENING_TYPE	ACCESS_OPENING_TYPE	String	25	SWS_SDMH_ACCESS_OPENING_TYPE
LID_TYPE	LID_TYPE	String	30	SWS_SDMH_TYPE
LID_TEXT	LID_TEXT	String	30	SWS_SDMH_LID_TEXT
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	

SWS_BUBBLER_BOX				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	25	SWS_SPATIALSOURCE
GRATE_OPENINGS_NUM	GRATE_OPENINGS_NUM	SmallInteger	2	SWS_GRATE_OPENINGS
GRATE_LENGTH	GRATE_LENGTH	Double	8	SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double	8	SWS_GRATE_WIDTH
DRYWELL_ASSOC	DRYWELL_ASSOC	String	5	GIS_BOOLEAN_YES_NO
GPSX	GPSX	Double	8	
GPSY	GPSY	Double	8	
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	
NOTES	NOTES	String	50	

SWS_CATCHBASIN				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	25	SWS_LIFECYCLESTATUS
STRUCTURE_TYPE	STRUCTURE_TYPE	SmallInteger	2	SWS_STRUCTURE_TYPE
CATCHBASIN_TYPE	CATCHBASIN_TYPE	String	25	SWS_CB_TYPE
LOCATION	LOCATION	String	100	
CITY_EMBLEM	CITY_EMBLEM	String	5	GIS_BOOLEAN_YES_NO
ACCESS_OPENING_TYPE	ACCESS_OPENING_TYPE	String	25	SWS_CB_ACCESS_OPENING_TYPE
GRATE_LENGTH	GRATE_LENGTH	Double	8	SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double	8	SWS_GRATE_WIDTH
LID	LID	String	5	GIS_BOOLEAN_YES_NO
LID_TYPE	LID_TYPE	String	25	SWS_CB_LID_TYPE
DRYWELL_CONN	DRYWELL_CONN	String	5	GIS_BOOLEAN_YES_NO
OUTLET_CONN	OUTLET_CONN	String	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_CONN	BUBBLERBOX_CONN	String	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_DRYWELL_ASSOC	BUBBLERBOX_DRYWELL_ASSOC	String	5	GIS_BOOLEAN_YES_NO
LAKE_DRAIN	LAKE_DRAIN	String	5	GIS_BOOLEAN_YES_NO
GPSX	GPSX	Double	8	
GPSY	GPSY	Double	8	
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	
NOTES	NOTES	String	50	

SWS_DRYWELL_PNT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
Shape	Shape	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER_1
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS_1
SPATIALSOURCE	SPATIALSOURCE	String	25	SWS_SPATIALSOURCE_1
FIELD_LOC	FIELD_LOC	String	100	SWS_DW_LOCATION
INSTALLER	INSTALLER	String	30	SWS_DW_INSTALLER
CHAMBER_TYPE	CHAMBER_TYPE	String	30	SWS_DW_CHAMBER_TYPE
LID_SIZE	LID_SIZE	SmallInteger	2	SWS_DW_LID_SIZE
LID_TYPE	LID_TYPE	String	25	SWS_DW_LID_TYPE
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	String	5	GIS_BOOLEAN_YES_NO
CONCRETE_PAD	CONCRETE_PAD	String	5	GIS_BOOLEAN_YES_NO
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	

SWS_INLET_PNT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
Shape	Shape	Geometry	0	
CATCHBASIN_TYPE	CATCHBASIN_TYPE	String	25	SWS_CB_TYPE
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER_1
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS_1
SPATIALSOURCE	SPATIALSOURCE	String	25	SWS_SPATIALSOURCE_1
FIELD_LOC	FIELD_LOC	String	100	SWS_FIELD_LOC
GRATE_ASSOC	GRATE_ASSOC	String	25	GIS_BOOLEAN_YES_NO
GRATE_LENGTH	GRATE_LENGTH	Double	8	SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double	8	SWS_GRATE_WIDTH
INLET_PIPE_DIAM	INLET_PIPE_DIAM	SmallInteger	2	SWS_INLET_PIPE_DIAM
INLET_NUMBER	NUMBER_OF_INLETS	SmallInteger	2	
TRASHRACK_ASSOC	TRASHRACK_ASSOC	String	5	GIS_BOOLEAN_YES_NO
TRASH_LENGTH	TRASH_LENGTH	Double	8	
TRASH_WIDTH	TRASH_WIDTH	Double	8	
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	String	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	String	5	GIS_BOOLEAN_YES_NO
HEADWALLASSOC	HEADWALLASSOC	String	5	GIS_BOOLEAN_YES_NO
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	

SWS_OUTLET_PNT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER_1
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	String	25	SWS_SPATIALSOURCE_1
GRATE_ASSOC	GRATE_ASSOC	String	25	GIS_BOOLEAN_YES_NO
GRATE_LENGTH	GRATE_LENGTH	Double	8	SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double	8	SWS_GRATE_WIDTH
INLET_PIPE_DIAM	INLET_PIPE_DIAM	SmallInteger	2	SWS_INLET_PIPE_DIAM
INLET_NUMBER	NUMBER_OF_INLETS	SmallInteger	2	
TRASHRACK_ASSOC	TRASHRACK_ASSOC	String	5	GIS_BOOLEAN_YES_NO
TRASH_LENGTH	TRASH_LENGTH	Double	8	
TRASH_WIDTH	TRASH_WIDTH	Double	8	
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	String	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	String	5	GIS_BOOLEAN_YES_NO
HEADWALLASSOC	HEADWALLASSOC	String	5	GIS_BOOLEAN_YES_NO
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	

SWS_SCUPPER_PNT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID	4	
SHAPE	SHAPE	Geometry	0	
FEATUREOWNER	FEATUREOWNER	String	25	SWS_FEATUREOWNER_1
LIFECYCLESTATUS	LIFECYCLESTATUS	String	25	SWS_LIFECYCLESTATUS_1
SPATIALSOURCE	SPATIALSOURCE	String	25	
CITY_EMBLEM	CITY_EMBLEM	String	5	GIS_BOOLEAN_YES_NO
NUMBER_OPENINGS	NUMBER_OPENINGS	SmallInteger	2	
WIDTH	WIDTH	Double	8	
SPELLWAY_ASSOC	SPELLWAY_ASSOC	String	25	GIS_BOOLEAN_YES_NO
HEADWALL_ASSOC	HEADWALL_ASSOC	String	5	GIS_BOOLEAN_YES_NO
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	String	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_ASSOC	BUBBLERBOX_ASSOC	String	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	String	5	GIS_BOOLEAN_YES_NO
LAKE_DRAIN	LAKE_DRAIN	String	5	GIS_BOOLEAN_YES_NO
RIPRAP	RIPRAP	String	25	GIS_BOOLEAN_YES_NO
COMMENTS	COMMENTS	String	255	
COLLECTED_DATE	COLLECTED_DATE	Date	8	

Sewer Domains:

Domain name	SWS_DW_LOCATION
AIRPORT	AIRPORT
CITYRETENTION	CITY RETENTION
PARK	PARK
PARKING_LOT	PARKING LOT
PRIVATERETENTION	PRIVATE RETENTION
STREET	STREET
WELL_SITE	WELL SITE
Domain name	SWS_GRATE_LENGTH
12	12
24	24
28	28
30	30
36	36
38	38
40	40
50	50
60	60
76	76
Domain name	SWS_CB_LID_TYPE
STEEL	STEEL
CONCRETE	CONCRETE
Domain name	SWS_DW_CHAMBER_TYPE
DOUBLE	DOUBLE
SINGLE	SINGLE
TRIPLE	TRIPLE

ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
REMOVED	REMOVED
Domain name	SWS_GRATE_OPENINGS
1	1
2	2
3	3
4	4
5	5
6	6
Domain name	SWS_SPATIALSOURCE_1
FIELD	FIELD
GPS	GPS
Domain name	SWS_SPATIALSOURCE
APPROVED_PLANS	APPROVED_PLANS
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

Domain name	SWS_LIFECYCLESTATUS_1
-------------	-----------------------

Domain name	SWS_SDMH_SIZE
-------------	---------------

22	22
24	24
26	26
28	28
30	30
32	32
38	38
Domain name	GIS_BOOLEAN_YES_NO
YES	YES
NO	NO
Domain name	SWS_DW_LID_SIZE
22	22
24	24
25	25
26	26
32	32
38	38
Domain name	SWS_STRUCTURE_TYPE
1	CATCH BASIN
2	SCUPPER
3	DRYWELL
4	MANHOLE
5	OUTLET
6	INLET
7	BUBBLERBOX
8	SPILLWAY
9	SEPARATOR

	SWS_CB_ACCESS_OPENING_TYPE
NONE	NONE
RECTANGULAR	RECTANGULAR
ROUND	ROUND
SQUARE	SQUARE
Domain name	SWS_FEATUREOWNER_1
ADOT	ADOT
CITY_OF_CHANDLER	CITY_OF_CHANDLER
HOA	HOA
PRIVATE	PRIVATE
Domain name	SWS_LIFECYCLESTATUS
ACTIVE	ACTIVE
FUTURE	FUTURE
REMOVED	REMOVED
INACTIVE	INACTIVE
ABANDONED	ABANDONED
Domain name	SWS_FEATUREOWNER
ADOT	ADOT
CITY_OF_CHANDLER	CITY_OF_CHANDLER
HOA	HOA
OTHER	OTHER

Domain name	
-------------	--

Domain name	SWS_SDMH_LID_TEXT
CHANDLER_SANITATION_SEWER	CHANDLER SANITATION SEWER
CHANDLER_STORM/SEWER	CHANDLER STORM/SEWER
NONE	NONE
OTHER	OTHER
STORM SEWER	STORM SEWER
Domain name	SWS_DW_INSTALLER
McGUCKINDRILLING	McGUCKIN DRILLING
OTHER	OTHER
TORRENTRESOURCES	TORRENT RESOURCES
WACODRILLING	WACO DRILLING
Domain name	SWS_GRATE_WIDTH
6	6
12	12
16	16
18	18
24	24
28	28
30	30
36	36
38	38
44	44
72	72
Domain name	SWS_SDMH_ACCESS_OPENING_TYPE
NONE	NONE
RECTANGULAR	RECTANGULAR
ROUND	ROUND
SQUARE	SQUARE

Domain name	SWS_FIELD_LOC
AIRPOR	AIRPORT
CTYRTN	CITYRETENTION
Domain name	SWS_CB_TYPE
NONE	NONE
PARK	PARK
PRKLOT	PARKING_LOT
PVRET	PRIVATERETENTION
STREET	STREET
TYPE_A	TYPE_A
TYPE_B	TYPE_B
TYPE_C	TYPE_C
TYPE_D	TYPE_D
TYPE_E	TYPE_E
TYPE_F	TYPE_F
TYPE_G	TYPE_G
TYPE_H	TYPE_H
TYPE_Q	TYPE_Q
WELLSI	WELL_SITE
Domain name	SWS_INLET_PIPE_DIAM
12	12
13	13
14	14
15	15
16	16
18	18
24	24
26	26
30	30
36	36
42	42
46	46
60	60
72	72

Domain name	SWS_SDMH_TYPE
PRESSURIZED	PRESSURIZED
NON-PRESSURIZED	NON-PRESSURIZED
Domain name	SWS_DW_LID_TYPE
STEEL	STEEL
GRANITE	GRANITE
CONCRETE_SEALED	CONCRETE_SEALED
GRATE	GRATE

EXHIBIT E
FEDERAL PROVISIONS

FEDERAL DOCUMENTS
CONSTRUCTION BID / CONTRACT

- **Contract with a DBE Goal (Race Conscious)**
- **Contract with Davis Bacon Wages**

FEDERAL DOCUMENTS

TABLE OF CONTENTS

FEDERAL FUNDED CONSTRUCTION CONTRACT DOCUMENTS
TABLE OF CONTENTS

Note: This bid/contract has a DBE Goal and Davis Bacon Wages Requirements

City of Chandler Federal Requirements Guide for Contractors..... 1.0

Federal Non-Collusion Bidding Certification SUBMIT WITH BID..... 2.0

Prompt Pay and Payment Reporting Provisions 3.0

Title VI 4.0

Title VI Assurance

Title VI Appendix A

Title VI Appendix E

DBE EPrise (Disadvantaged Business Enterprises) / DBE Goal..... 5.0

Verification Statement for SAM requirements & E-Verify SUBMIT WITH BID 6.0

FHWA 1273 7.0

Buy America / Build America Buy America / Material Certifications 8.0

EEO (Equal Opportunity Employment) 9.0

EEO Clause / Statement **SUBMIT WITH BID**

EEO Executive Order 11246 (Standard Federal EEO Construction Contract Specifications)

EEO Notice of Requirement for Affirmative Action to Ensure EEO

EEO Equal Employment Opportunity Compliance Reports

EEO Executive Order 2009-09

Federal Immigration and Nationality Act..... 10.0

Records Retention/Contractor-Subcontractor Records 11.0

Jobsite Posters Requirements 12.0

David Bacon Wage Decision for this contract 13.0

DBE / ADOT BECO Forms / Submittal Instructions 14.0

SEE DBE INSTRUCTION PAGE

SUBMIT WITH BID:

- DBE Form 3102C – DBE Goal Assurance – **SUBMIT WITH BID**

Must be submitted no later than the 5th calendar day post bid opening date, 4PM:

- DBE Bidders/Proposers List Email Confirmation / Instructions
- DBE Form 3105C DBE Intended Participation Affidavit & Confirmation (Individual)
- DBE Form 3106C DBE Intended Participation Affidavit Summary (Prime)

IF Applicable, Must be submitted no later than the 5th calendar day post bid opening date:

- DBE Form 103C GFE Guide (Good Faith Efforts) (submit only if applicable)

To be used as applicable during the course of the construction project:

- DBE Form 3108C DBE Termination Substitution Request
- DBE Form 3109C Joint Check Agreement Request
- DBE Form 3114C Joint Check Agreement
- DBE Form 3110C DBE Certification of Final Payment
- Construction Contracts LPA DBE Subcontract Compliance Assurances (for subcontracts)

1.0

**FEDERAL GUIDE
FOR CONTRACTORS**

Federal Funded Contract Guide for Contractors/Subcontractors

This is an FHWA federal funded project.

1. This an FHWA Federal Funded Contract/Project. There is a ZERO TOLERANCE for compliance of the federal requirements.
2. **NEW:** Build America-Buy America Requirements – please review the documentation provided.
3. **NEW:** No Retention can be held on federal funded contracts: City to Prime and Prime to Subcontractors.
4. **NEW:** FHWA 1273 10-23-2023
5. A successful responsive low bidder will have 60 calendar days to obtain proper contractor's license required by the State.
6. Prime Contractor Must self-perform **50%** of the contract.
7. Records: Record Retention for federal projects must be maintained for five (5) years following completion. This includes Prime Contractor, Subcontractors, Consultants, Subconsultants.
8. Web Site Registration Requirements:
 - a. AZ UTRACS website - (<https://utracs.azdot.gov>) All Contractors/Subcontractors are required to have a 5-digit AZ UTRACS Number, and have an updated non-expired profile in this system.
 - b. ADOT DOORS System – Monthly Payment Reporting System (not just for DBE's) (<https://adotdoors.dbesystem.com/>) or (<https://arizonaipa.dbesystem.com>) Contractors/subcontractors must be registered in the ADOT Payment Reporting System. This is where monthly payments will be reported and verified.
 - c. SAM (www.sam.gov) – This site identifies contractors who cannot work on a federal funded project due to specific debarments. See Code of Federal Regulations Title 2 Subtitle A Part 180 Subpart H.
 - i. No Contractor/Subcontractor with a debarment can work on a federal funded project.
 - ii. No Contractor/Subcontractor with an unresolved federal debt can work on a federal funded project.
 - d. LCPTTracker (Certified Payroll) – (<https://prod-cdn.lcptracker.net>) Only required if your company work is identified as being required to submit certified payroll reports.
9. CERTIFIED PAYROLL / FRINGE BENEFITS / EMPLOYEE DEDUCTIONS / CLASSIFICATIONS
 - a. Certified Payrolls Reporting is a requirement to work on this project.
 - b. **IMPORTANT:** Hours/dates/employees/classifications worked **MUST MATCH** what jobsite inspector reports on his/her daily report each day. **ENSURE YOUR CREW CHECKS IN WITH PRIME AND INSPECTOR.**
 - c. City of Chandler requires the use of LCPTTracker system for transmitting certified payroll reports.
 - d. Certified Payroll Reporting Starts: The first day a contractor/subcontractor starts work on site until their contract work is complete and finalized. This includes working and non working weeks.
 - e. Late or non-submittal of payroll reports:
 - i. US Department of Labor requires that payroll reports be submitted within 7 days of pay date.
 - ii. City of Chandler may assess penalty retainer of \$2,500 for each non-submitted payroll and/or discrepancy payroll reports submitted and rejected **AND CAN BE PASSED TO SUBCONTRACTOR.**
 - iii. City of Chandler can stop subcontract work until compliance is met.
 - f. Foreman, Superintendents, Owners who perform labor on site are considered laborers and **MUST BE REPORTED ON CERTIFIED PAYROLL** with exception to de minimis time.
 - g. Payroll Time Requirements / Legal
 - i. All Laborers / Mechanics on Federal Funded Projects **Must** Be Paid Weekly.
 - ii. Contractor Penalty for not paying weekly - \$5,000 Fine and/or up to five (5) years in Prison.
 - iii. If Contractor lies/falsifies Certified Payroll, penalty can be up to 15 years in jail.
 - iv. Under paying employees – subcontract may be terminated, contractor/subcontractor can be debarred from working on federal funded contracts for up to three (3) years.
 - h. Project Specific Davis Bacon Wage Decision is included in your contract. Not all Wage Decisions are the same and are "Project Specific". You must pay all certified payroll employees at or above the specified Davis Bacon Wage Decision rates for this project. (Base + Fringe)
 - i. Site of Work: Includes project site, other areas where significant portion of the building or work is constructed provided that: 1) such site is established specifically for the contract and no other work, and 2) is located adjacent or virtually adjacent to the site of the work (within visual).
 - j. Employee Benefits Plans / Fringes:
 - i. If Contractor / Subcontractor wants to utilize company paid benefits paid to employee towards the required Davis Bacon Wage requirement in lieu of cash, the following two items must be submitted to and approved by the City Federal Compliance Oversight.
 1. Company-Employee Benefits and Health care plan. This includes company benefits for employees, which may include more than health care plans, such as vacation, sick leave, 401K, paid time off, etc.
 2. Worksheet showing the hourly breakdown of the costs to be used.

- k. Employee Deduction Authorization Form (EDA): All Contractors/Subcontractors submitting certified payroll must submit these forms to the City of Chandler **for every employee that has dollars in the "Other" box** on the payroll reports. This is a one-time submittal for each employee unless deductions change for that employee, and does not need to be submitted with every payroll report. Submit to: Janece Ray at Janece.ray@chandleraz.gov. Request a generic form if you do not have one.
- l. Classification Requests (also known as Conformance Requests): If no classification matches a task/employee work classification from the wage decision for this contract, YOU WILL NEED TO SUBMIT A Classification Request SF1444 (City of Chandler Form, ADOT Forms are not allowed).
- m. Overtime Requirement by Department of Labor: The overtime rate must be 1.5 x the Base Rate on the Wage Decision or 1.5 x a higher wage rate that you already pay, (you cannot pay 1.5 OT rate on the base rate if you are paying a lower base rate due to higher fringe rate).
- n. DO NOT USE 'GENERAL LABORER CLEANUP' as a catch all. DOL DOES NOT WANT TO SEE MORE THAN 3 GENERAL LABORERS TO A SKILLED CLASSIFICATION.

10. EMPLOYEE INTERVIEWS

- a. Employee Interviews process is a Department of Labor federal requirement on federal funded projects. This is to ensure employees are being paid correctly for the tasks they are working. Interviews are confidential and employers cannot have access to interview documentation.

11. PAYMENT REPORTING: (aka Monthly Payments made-received/Prompt Pay Requirements/DBE Dollars-Goal Tracking)

- a. ALL CONTRACTORS AND SUBCONTRACTORS, **MUST** be registered with ADOT's DOORS System in order to work on this federal funded project. (<https://adotdoors.dbesystem.com/>) **THIS INCLUDES PROFESSIONAL SERVICES.**
- b. ALL CONTRACTORS/SUBCONTRACTORS are required to report monthly in the above listed system from your first payment to when your contract is complete. This includes months that \$-0- payments occur.
- c. Report the date paid; Report the date received. DO NOT GUESS.
 - i. DBE's who subcontract down to a lower tier: If Lower Tier is not a DBE, payment amounts to lower tier will not count towards the DBE Goal.
- d. It is not allowed to change/cancel **DBE** Subcontractors without approval from the City.
- e. Scope of Work changes on a DBE subcontract is not allowed without City approval.
- f. Reporting Schedule: Primes must report payments made to subcontractors no later than the 10th of each month for payments made the previous month. Subcontractors must verify or report payment discrepancies by the 30th of each month for report made by the Prime. Subcontractors must report payments made to lower tiers by the 15th of each month for payments made the previous month (including \$0).
- g. DBE Subcontractors: important reminder – payments reported total and the DBE Final Payment Certification Form required at completion of subcontract work must have the same total dollars paid – must match.

12. PROMPT PAY

- a. Subcontractors must be paid within 7 days from payment received from the City for the related work.
- b. The following month – by the 10th of each month, Primes must report into the DBE System – reporting all payments made to the subcontractors the previous month as listed above.
- c. Prime is responsible for ensuring subcontractors pay lower tiers.
- d. Subcontractors must pay lower tiers within 7 days of receiving payment from the Prime for work the lower tier performed that was paid to the Prime – to the subcontractor.
- e. Note that just because a subcontractor or a lower tier subcontractor performed work, the Prime may not have been paid for that work. Prompt Pay 7-day payment requirements is for work paid for from the City to the Prime; Prime to the Subcontractor; Subcontractor to the Lower Tier Subcontractor.
- f. Payment reporting: is the reported amount correct, was payment received within 7 days from the date the Prime was paid? DO NOT GUESS.

13. REGISTRAR OF CONTRACTORS LICENSE (ROC)

- a. A current ROC License is required for all Contractors/Subcontractors with exceptions to businesses/services that do not require an ROC License.
- b. Name on the Subcontract, the SRF Request Form, and the ROC License MUST MATCH.

14. BUY AMERICA AND BUILD AMERICA-BUY AMERICA (BABA) REQUIREMENTS FOR MATERIALS

- a. **MATERIALS USED ON THIS PROJECT MUST FOLLOW THE BUY AMERICA REQUIREMENTS.**
- b. Zero tolerance on all material requiring "Buy America" material certification.
- c. Suppliers, vendors, and subcontractors must provide material certifications before material can be accepted, installed, and paid for.
- d. NO PAYMENTS FOR MATERIALS WITHOUT APPROVED MATERIAL CERTIFICATIONS.
- e. Recommendation: Provide Buy America/Build America-Buy America Requirements to your Vendors and Suppliers.

15. JOBSITE POSTERS

- a. There are jobsite poster requirements and City of Chandler will assist with required posters list.
- b. All employees working on site must have access to view jobsite posters without supervision.
- c. All employees must be able to state they have seen the wage decision for this project.

16. SUBCONTRACTORS

- a. **Subcontractors (including Professional Services) must go through the approval process with the City.**
- b. **Subcontractors cannot start until approved by the City. (this includes barricades, professional services etc.)**
- c. **All subcontractors must notify Prime and Inspector to be on site each day.**
- d. **FHWA requires Inspector to document on daily report each day, what subcontractors and identify their employees, the task classifications, and equipment subcontractor is utilizing on site.**
- e. **DBE Subcontractors:** Subcontracts must be submitted prior to construction start.
- f. All subcontractors (includes lower tiers) must have an ROC license (if the business type requires it).
- g. All contractors/subcontractors **must have a 5-digit AZ UTRACS number** (<https://utracs.azdot.gov>)
- h. All contractors/subcontractors (including lower tiers) will be required to report monthly into the ADOT DBE Reporting System: This is for payments received/not received from Prime, payments made to lower tiers, lower tiers must report payments received/not received.
- i. All DBE Subcontractors MUST perform a minimum of 30% of their contract.
- j. **Testing Subcontractors** must be on the ADOT Accredited Materials Testing Laboratories List. (<https://azdot.gov/business/engineering-and-construction/materials/materials-quality-assurance/adot-accredited>).

17. TITLE VI

- a. Any complaints related to Title VI while on the jobsite must be forwarded to the City of Chandler Federal Compliance to handle. Please forward complaints to one of the following:
 - i. Dan Haskins: 480-782-3335 / dan.haskins@chandleraz.gov
 - ii. Janece Ray: 480-782-3331 / janece.ray@chandleraz.gov
- b. Federal Requirements – we must follow the requirements under Title VI –
Title VI: The City of Chandler hereby gives public notice that it is the City's policy to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person shall, on the grounds of race, color, sex, national origin, age or disability be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any Federal Aid Highway program or other activity for which the City receives Federal financial assistance. Any person, who believes his/her Title VI protection has been violated, may file a complaint. Any such complaint must be in writing and filed with the City's Title VI Program Manager within one hundred eighty (180) days following the date of the alleged discriminatory occurrence. Title VI Discrimination Complaint Forms may be obtained from the City by contacting the Capital Projects Title VI Coordinator, Dan Haskins at 480-782-3335 or Daniel.haskins@chandleraz.gov

18. T&M

- a. For T&M work activities, **Lump Sum charges/Hourly Rates/Daily Rates ARE NOT ALLOWED** on federal funded contracts. Contractors and Subcontractors – required: daily work document signed off by inspector with employees, hours, equipment, description. Invoice documentation must show each date for employees, hours, and certified payroll rates on the applicable APPROVED certified payroll.

19. RETENTION

- a. Due to FHWA Federal requirements on FHWA Federal Funded Contracts, the City must follow the same retention process that ADOT uses, and Contractors must follow the same process as the City. Per the federal regulation options, ADOT has chosen the option to no longer hold retention on federal funded contracts. Therefore, the City and the Contractors cannot hold retention.
- b. Tip for Primes: There are some Federal Compliance tasks that have penalties. Pay attention to subcontractor discrepancies that have penalties such as certified payrolls, payment reporting, and Prompt Pay. These penalties will be deducted from the Prime's pay application payment and the Prime can then pass on/withhold to the applicable subcontractor(s).

20. SANCTIONS / PENALTIES / LIQUIDATED DAMAGES (Certified Payroll, Prompt Pay, DBE Reporting)

- a. **Certified Payrolls**
 - i. Monthly discrepancies will be notified to Prime for the previous month's discrepancies.
 - ii. Discrepancy penalties are \$2,500 each with a 10-day grace period to correct the discrepancy. Corrections made 11th day to 90th day, the penalty is assessed. Corrections after the 90th day \$500 is non-refundable.
- b. **Payment Reporting**
 - i. **Not Reporting has required Penalties - Liquidated Damages, non-refundable:** If you made any payments to subs and do not report the payments the following month, the penalty that the City must assess and will be withheld from the next pay application, is **\$ 5,000**, non-refundable. And will be assessed again the following month if payment not reported, non-refundable.

- ii. After 90 consecutive days of non-reporting of those payment(s), the penalty/liquidated damages will increase to \$10,000 for each subsequent month until the Contractor reports.
- iii. This Liquidated Damages \$1000.00 can only be initiated by the City of Chandler to the Prime, BUT the Prime CAN pass on to the respective Subcontractor who did not report for a payment to a lower tier.
- c. Prompt Pay Provisions - Penalty for Non-Payments
 - i. City of Chandler is required to withhold two times (2x) the amount due to subcontractors if not paid within 7 days of receiving payment. If full payment is made to that subcontractor within 30 days of the date the City of Chandler pays the Prime, the amount withheld (2x the amount due to subcontractor) will be released. If payment is made after the 30 days of the City of Chandler's payment date to the Prime Contractor, 75% will be returned and 25% will be withheld as liquidated damages.
 - ii. This is also required of subcontractors to lower tier subcontractors.
 - iii. If non-payment lasts for three consecutive months, or any four months over the course of one project:
 1. Withhold monthly progress payments
 2. Terminate the contract for default
 3. Can be disqualified from future bidding, temporarily or permanently, based on severity of violations.

COURTESY WEBSITE REFERENCE LIST

1	https://utracs.azdot.gov	Register for Utracs 5-digit number, profile, list NAICS codes, shows whether or not you are a DBE. There are links on this page to: -On Line Bidders List -DBE Reporting system
2	https://adotdoors.dbesystem.com/	Payment Reporting System – verifies payments, Prompt Pay, DBE requirements. This is for all contractors, subcontractors, consultants subconsultants.
3	www.sam.gov	Register a profile. This site shows contractors that have outstanding/unresolved federal tax liens or are on a debarment list from working on a federal funded project. You want this site to show your company clear to work on federal funded projects.
4	https://prod-cdn.lcptracker.net/	Certified Payroll Reporting System
5	https://www.dol.gov/whd/resources/posters.htm https://www.dol.gov/ofccp/regs/compliance/posters/ofccpost.htm https://www.dol.gov/vets/programs/userra/poster.htm https://www.osha.gov/Publications/poster.html https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm https://www.dol.gov/agencies/olms/poster/labor-rights-federal-contractors https://www.azica.gov/posters-employers-must-display https://www.fhwa.dot.gov/programadmin/contracts/fhwa1022.pdf https://www.azica.gov/posters-employers-must-display	Where to find jobsite posters
6	https://azdot.gov/business/engineering-and-construction/materials/materials-quality-assurance/adot-accredited	ADOT Accredited Laboratories ADOT Accredited Materials Testing Laboratories - Independent

2.0

FEDERAL NON-COLLUSION BIDDING CERTIFICATION

-Must be signed

-Must be Notarized

-Must be submitted with bid

FEDERAL NON-COLLUSION BIDDING CERTIFICATION

(This form must be filled out, signed, notarized, and submitted with bid or proposal)

(State of)

ss.

(County of)

I, _____ of the City of _____, in the County of _____, and the State of _____, of full age, being duly sworn according to

the law of my oath depose and say that:

I am _____, a _____
(Name) (Title, Position, etc.)

Of the firm of _____, the Bidder making the bid for:

Project Name:

City Project No

Federal Project No

ADOT Project No

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.

The bidder certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that

1. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, or an employee of a Member of Congress, in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.
2. If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL "Disclosure Form to Report Lobbying," in accordance with its instructions. Copies of Form-LLL, "Disclosure Form to Report Lobbying", are available at ADOT Contracts and Specifications Services, 1651 W Jackson, Room 121F, Phoenix, AZ 85007. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$1,000,000 for each such failure.

The bidder also agrees, by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all subcontracts, and lower tier subcontracts which exceed \$100,000 and that all such subcontractors and lower tier subcontractors shall certify and disclose accordingly.

The City of Chandler will keep the prime contractor's certifications on file as part of their original bid proposals. Each prime contractor shall keep individual certifications from all subcontractors and lower tier subcontractors on file. Certifications shall be retained for three years following completion and acceptance of any given project.

Disclosure forms for the prime contractor shall be submitted to the Engineer at the pre-construction conference. Disclosure forms for subcontractors and lower tier subcontractors shall be submitted to the Engineer by the prime contractor along with the submittal of each subcontract or lower tier subcontract as required under 23 CFR 635A and ADOT Specification 108.01 when said subcontracts exceed \$100,000.00 During the performance of the contract the prime contractor and any affected subcontractors shall file revised disclosure forms at the end of each calendar year quarter in which events occur that materially affect the accuracy of any previously filed disclosure form. Disclosure forms will be submitted by the engineer to the Federal Highway Administration for further processing.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract. I 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

Printed or Typed Name of Bidder

(required)
NOTARY

Subscribed and sworn to before me

this _____ day of _____ (month), _____ (year)

Notary Public

Seal:

3.0

PROMPT PAY PROVISIONS

**CONSTRUCTION AND PROFESSIONAL SERVICES/DESIGN CONTRACTS
PROMPT PAY AND PAYMENT REPORTING PROVISIONS**

** FOR USE ON LPA FEDERAL AID PROJECTS **

(07/24/2023)

MEASUREMENTS AND PAYMENT:

(A) Partial Payments:

If satisfactory progress is being made, the contractor shall receive a payment based on the amount of work completed. Progress payments may be made by the LPA/Subrecipient Procurement Office to the contractor on the basis of an approved estimate of the work performed during a preceding period of time. The progress payments will be paid on or before 14 days after the estimate of the work is approved. The estimate of the work will be deemed received by the LPA/Subrecipient Procurement Office on submission to the person designated by the LPA/Subrecipient Procurement Office for the submission, review or approval of the estimate of the work. The LPA/Subrecipient Procurement Office by mutual agreement may make progress payments on contracts of less than 90 days and will make monthly progress payments on all other contracts. Payment to the contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under the contract may include payment for material and equipment.

An estimate of the work submitted will be deemed approved and certified for payment after seven days from the date of submission unless before that time the LPA/Subrecipient Procurement Office or Designee prepares and issues a specific written finding setting forth those items in detail in the estimate of the work that are not approved for payment under the contract. The contractor shall work with the LPA/Subrecipient or the LPA/Subrecipient Designee to finalize monthly estimate. The progress payments will be paid on or before 14 days after the estimate of the work is certified and approved in accordance with Arizona Revised Statutes Section 34-221.

The contractor shall pay to the contractor's subcontractors or material suppliers and each subcontractor shall pay to the subcontractor's subcontractor or material supplier, within seven days of receipt of each progress payment the respective amounts allowed the contractor or subcontractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest.

No contract for construction services may materially alter the rights of any contractor, subcontractor, or material supplier to receive prompt and timely payment.

A subcontractor may notify the LPA/Subrecipient Procurement Office in writing requesting that the subcontractor be notified by the Subrecipient Procurement Office in writing within five days from payment of each progress payment made to the contractor.

(B) No Retainage on Progress Payments:

- (1) This is a federally-funded project. Therefore, notwithstanding A.R.S. § 34-221, the LPA/Subrecipient Procurement Office will not withhold retainage from progress payments. Neither the contractor, nor the subcontractor of any tier, may withhold any retainage on progress payments to subcontractors or suppliers of any tier.
- (2) This provision does not prevent the LPA/Subrecipient Procurement Office from withholding retainage or reducing payments where otherwise provided in the contract. These cases may include, but are not limited to:
 - (a) Delayed work;
 - (b) Work that is not satisfactorily performed; or
 - (c) A failure to submit necessary reports, certifications, or documents to the LPA/Subrecipient Procurement Office.

(C) Subcontractor Payments:

(1) No Retainage:

- (a) This is a federally-funded project. Therefore, notwithstanding A.R.S. § 34-221, neither the contractor, nor the subcontractor of any tier, may withhold any retainage on progress payments to subcontractors or suppliers of any tier.
- (b) Pursuant to Subsection (B)(2) of this Specification, the contract does not prevent the LPA/Subrecipient Procurement Office from withholding retainage or reducing payments where otherwise provided in the contract. These cases may include, but are not limited to:
 - (i) Delayed work;
 - (ii) Work that is not satisfactorily performed; or
 - (iii) A failure to submit necessary reports, certifications, or documents to the LPA/Subrecipient Procurement Office.
- (c) When the LPA/Subrecipient Procurement Office withholds retainage or reduces payments under Subsection (B)(2) of this Specification, the contractor may withhold retainage on progress payments to subcontractors or suppliers of any tier. However, the contractor may only withhold a reasonable amount of retainage.
- (d) For the purpose of this section, a “reasonable amount” of retainage is based on the subcontractor’s involvement or the supplier’s involvement in the cause for the LPA/Subrecipient Procurement Office’s reduction of payment. The final amount retained from all subcontractors and suppliers shall not be higher than the amount retained by the LPA/Subrecipient. However, tier subcontracts shall include provisions that comply with this section.

(2) No Set-offs Arising from Other Contracts:

If a subcontractor is performing work on multiple contracts for the same contractor or subcontractor of any tier, the contractor or subcontractor of any tier shall not withhold or reduce payment from its subcontractors on the contract because of disputes or claims on another contract.

(3) Partial Payment:

The contractor and each subcontractor of any tier shall make prompt partial payments to its subcontractors within seven days of receipt of payment from the LPA/Subrecipient Procurement Office. Notwithstanding any provision of Arizona Revised Statutes Section 34-221, the parties may not agree otherwise.

(4) Final Payment:

The contractor and each subcontractor of any tier shall make prompt final payment to each of its subcontractors. The contractor and each subcontractor of any tier shall pay all monies, including retention, due to its subcontractor within seven days of receipt of payment. Notwithstanding any provision of Arizona Revised Statutes Section 34-221, the parties may not agree otherwise.

(5) Payment Reporting:

For the purposes of this subsection "Reportable Contracts" means any subcontract, of any tier, DBE or non-DBE, by which work shall be performed on behalf of the contractor and any contract of any tier with a DBE material supplier.

The requirements of this subsection apply to all Reportable Contracts.

Payment Reporting for all Reportable Contracts shall be done through the LPA DBE System which can be accessed at AZ UTRACS on the Arizona Transportation Business Portal at www.azutracs.com. No later than fifteen calendar days after the preconstruction conference, the contractor shall log into the system and enter or verify the name, contact information, and subcontract amounts for Reportable Contracts on the project. As Reportable Contracts are approved over the course of the contract, the contractor shall enter the subcontractor information in the LPA DBE System. Reportable contracts information shall be entered into the system no later than five calendar days after approval by the LPA/Subrecipient Procurement Office.

The contractor shall report on a monthly basis indicating the amounts actually paid and the dates of each payment under any Reportable Contract on the project. The contractor shall provide information for payments made on all Reportable Contracts during the previous month by the last day of the current month. In the event that no payments were made during a given month, the contractor shall identify that by entering a dollar value of zero. If the contractor does not pay the full amount of any invoice from a subcontractor, the contractor shall note that and provide the reasons in the comment section of the Monthly Payment Audit of the LPA DBE System.

In addition, the contractor shall require that all participants in any Reportable Contract electronically verify receipt of payment on the contract within 15 days of receipt of electronic payment notification and the contractor shall actively monitor the system to ensure that the verifications are input. The contractor shall proactively work to resolve any payment discrepancies in the system between payment amounts it reports and payment confirmation amounts reported by others.

The contractor shall ensure that all Reportable Contract payment activity is in the LPA DBE System. This includes all lower-tier Reportable Contracts.

The contractor shall maintain records for each payment explaining the amount requested by the subcontractor, and the amount actually paid pursuant to the request, which may include but are not limited to, estimates, invoices, pay requests, copies of checks or wire transfers, and lien waivers in support of the monthly payments in the system.

The contractor shall ensure that a copy of this Subsection is included in every Reportable Contract of every tier.

(a) Sanctions for Inadequate Reporting:

For each month that the contractor fails to submit timely and complete payment information the LPA/Subrecipient Procurement Office will retain \$5,000 as sanctions from the monies due to the contractor. After 90 consecutive days of non-reporting, the sanctions will increase to \$10,000 for each subsequent month which the contractor fails to report until the information is provided. These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

(6) Completion of Work:

A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted by the LPA/Subrecipient Procurement Office.

(7) Disputes:

If there is a discrepancy between what is reported by the contractor in the LPA DBE System and what the subcontractor indicates, an alert email will automatically be sent to the contractor. The email will be sent to the email address provided by the contractor in the LPA DBE System. It is the contractor's responsibility to ensure that the email address in the system is kept current.

The contractor shall provide a verifiable explanation of the discrepancy in the LPA DBE System as early as practicable but in no case later than seven days after the date of the alert email.

The LPA/Subrecipient will determine whether the contractor has acted in good faith concerning any such explanations. The LPA/Subrecipient and ADOT BECO reserves the right to request and receive documents from the contractor and all subcontractors of any

tier, in order to determine whether prompt payment requirements are met.

The contractor shall implement and use the dispute resolution process outlined in the subcontract or by following the LPA/Subrecipient escalation process, to resolve payment disputes.

(8) Non-compliance:

Failure to make prompt partial payment, or prompt final payment including any retention, within the time frames established above, will result in remedies, as the LPA/Subrecipient Procurement Office deems appropriate, which may include but are not limited to:

- (a) Sanctions: These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.
 - (i) The LPA/Subrecipient Procurement Office will withhold two times the disputed dollar amount not paid to each subcontractor.
 - (ii) If full payment is made within 30 days of the LPA/Subrecipient Procurement Office's payment to the contractor, the amount withheld by the LPA/Subrecipient Procurement Office will be released.
 - (iii) If full payment is made after 30 days of the LPA/Subrecipient Procurement Office's payment to the contractor, the LPA/Subrecipient Procurement Office will release 75 percent of the funds withheld. The LPA/Subrecipient Procurement Office will retain 25 percent of the monies withheld as sanctions.

- (b) Additional Remedies. If the contractor fails to make prompt payment for three consecutive months, or any four months over the course of one project, or if the contractor fails to make prompt payment on two or more projects within 24 months, the LPA/Subrecipient Procurement Office may, in addition, invoke the following remedies:
 - (i) Withhold monthly progress payments until the issue is resolved and full payment has been made to all subcontractors, subject to the sanctions described in paragraph (a) above,
 - (ii) Terminate the contract for default,
 - (iii) Disqualify the contractor from future bidding, temporarily or
 - (iv) permanently, depending on the number and severity of violations, if applicable.

In determining whether sanctions will be assessed, the extent of the sanctions, or additional remedies assessed, the LPA/Subrecipient will consider whether there have been other violations on this or other contracts, whether the failure to make prompt payment was due to circumstances beyond the contractor's control, and other circumstances. The contractor may, within 15 calendar days of receipt of the decision of the LPA/Subrecipient, escalate the decision according to the contract's escalation process.

4.0

TITLE VI

-TITLE VI ASSURANCE

-TITLE VI APPENDIX A

-TITLE VI APPENDIX E

City of Chandler
Title VI / Non-Discrimination Assurances
DOT Order No 1950.2A

The **City of Chandler** (herein referred to as the "Recipient"), HEREBY AGREES THAT, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through *Federal Highway Administration and Arizona Department of Transportation*, is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Non-discrimination In Federally-Assisted Programs Of The Department Of Transportation--Effectuation Of Title VI Of The Civil Rights Act Of 1964*);
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda and/or guidance, the Recipient hereby gives assurances that it will promptly take any measures necessary to ensure that:

"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including the Federal Highway Administration.

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its *Federal Aid Highway Program*.

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.

2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all *Federal Aid Highway Program* and, in adapted form, in all proposals for negotiated agreements regardless of finding source:

"The City of Chandler, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252.42 U.S.C. §§ 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.

4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.

5. That where the Recipient receives Federal financial assistance to a construct a facility or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.

6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.

7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:

- a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
- b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project or program.

8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:

- a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
- b. the period during which the Recipient retains ownership or possession of the property.

9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance. .

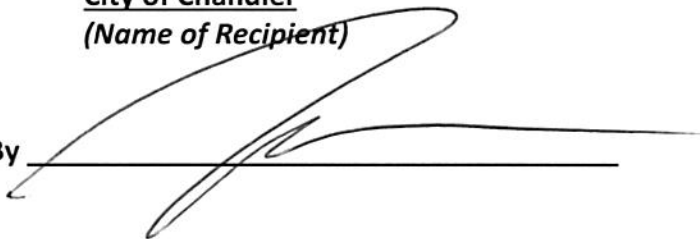
10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, *The **City of Chandler*** also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing *Federal Highway Administration or Arizona Department of Transportation* access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the *Federal Highway Administration or Arizona Department of Transportation*. You must keep records, reports, and submit the material for review upon request to *Federal Highway Administration, Arizona Department of Transportation*, or its designee in timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The **City of Chandler** gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the *Federal Highway Administration and Arizona Department of Transportation*. This ASSURANCE is binding on Arizona, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in the *Federal Aid Highway Program* the person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

City of Chandler
(Name of Recipient)

By _____



DATED _____

6/11/2024

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, *Federal Highway Administration or the Arizona Department of Transportation*, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient, the *Federal Highway Administration or Arizona Department of Transportation* to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient, the *Federal Highway Administration, or Arizona Department of Transportation*, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the *Federal Highway Administration or Arizona Department of Transportation*, may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient, the *Federal Highway Administration, or Arizona Department of Transportation* may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

5.0

DBE EPRISE

(see DBE Goal in this document)

CONSTRUCTION CONTRACTS DBE PROVISIONS

FOR USE ON LPA FEDERAL AID PROJECTS WITH GOALS.

(LPA EPRISE, 07/01/2017)

DISADVANTAGED BUSINESS ENTERPRISES:

1.0 Policy:

The Arizona Department of Transportation (hereinafter the Department) has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Department has received Federal financial assistance from the U.S. Department of Transportation and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Department to ensure that DBEs, as defined in Part 26, have an equal opportunity to receive and participate in USDOT-assisted contracts. It is also the policy of the Department:

1. To ensure nondiscrimination in the award and administration of USDOT-assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts;
3. To ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are counted as DBEs;
5. To help remove barriers to the participation of DBEs in USDOT-assisted contracts;
6. To assist in the development of firms that can compete successfully in the market place outside the DBE program and;
7. To promote the use of DBEs in all types of federally-assisted contracts and procurement activities.

It is also the policy of the Department to facilitate and encourage participation of Small Business Concerns (SBCs), as defined herein in USDOT-assisted contracts. The Department encourages contractors to take reasonable steps to eliminate obstacles to SBCs' participation and to utilize SBCs in performing contracts.

Local Public Agencies (LPA) and or Subrecipients of Federal financial assistance have adopted ADOT's DBE Program Plan, adhere to the Department's DBE policy and will administer and manage the contracts from advertising, consultant selection, negotiation, contract execution, processing payment reports and contract modifications, audits, DBE compliance (e.g., reporting and monitoring) through contract closeout.

2.0 Assurances of Non-Discrimination:

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the LPA/Subrecipient, with the Department's concurrence, deems appropriate, which may include, but not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

The contractor, subrecipient, or subcontractor shall ensure that all subcontract agreements contain this non-discrimination assurance.

3.0 Definitions:

- (A) Commercially Useful Function (CUF):** Commercially Useful Function is defined fully in 49 CFR 26.55 which definition is incorporated herein by reference.
- (B) Committed DBE:** A DBE that was identified by the contractor, typically on a DBE Affidavit, to meet an assigned DBE goal as a condition of contract award and performance, and includes any substitute DBE that has subsequently been committed work to meet the assigned contract goal.
- (C) Disadvantaged Business Enterprise (DBE):** a for-profit small business concern which meets both of the following requirements:
- (1) Is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51 percent of the stock is owned by one or more such individuals; and,
 - (2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.
- (D) Joint Check:** a two-party check between a subcontractor, DBE and/or non-DBE, a prime contractor and the regular dealer of material supplies.
- (E) Joint Venture:** an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution,

control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

(F) NAICS Code: The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the US business economy.

(G) Non-DBE: any firm that is not a DBE.

(H) Race Conscious: a measure or program is one that is focused specifically on assisting only DBEs, including women-owned DBEs.

(I) Race Neutral: a measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race neutral includes gender-neutrality.

(J) Small Business Concern: a business that meets all of the following conditions:

- (1) Operates as a for-profit business;
- (2) Operates a place of business primarily within the U.S., or makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials, or labor;
- (3) Is independently owned and operated;
- (4) Is not dominant in its field on a national basis; and
- (5) Does not have annual gross receipts that exceed the Small Business Administration size standards average annual income criteria for its primary North American Industry Classification System (NAICS) code.

(K) Socially and Economically Disadvantaged Individuals: any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

- (1) Any individual who is found to be a socially and economically disadvantaged individual on a case-by-case basis.
- (2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
 - (i) "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;
 - (ii) "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

- (iii) "Native Americans," which includes persons who are enrolled members of a federally or State recognized Indian tribe, Alaskan Natives or Native Hawaiians;
- (iv) "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Republic of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;
- (v) "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
- (vi) Women;
- (vii) Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA), at such time as the SBA designation becomes effective.

4.0 Working with DBEs:

The Department works with DBEs and assists them in their efforts to participate in the highway construction program. All bidders should contact the Department's Business Engagement and Compliance Office (BECO) by phone, through email, or at the address shown below, for assistance in their efforts to use DBEs in the highway construction program of the Department. BECO contact information is as follows:

Arizona Department of Transportation
Business Engagement and Compliance Office
1801 W. Jefferson Street, Room 101, Mail Drop 154A
Phoenix, AZ 85007
Phone (602) 712-7761
FAX (602) 712-8429
Email: contractorcompliance@azdot.gov
Website: www.azdot.gov/bec

4.01 Mentor-Protégé Program:

ADOT has established a Mentor-Protégé program as an initiative to encourage and develop disadvantaged businesses in the highway construction industry. The program encourages prime contractors to provide certain types of assistance to certified DBE subcontractors. ADOT encourages contractors and certified DBE subcontractors to engage in a Mentor-Protégé agreement under certain conditions. Such an agreement must be mutually beneficial to both

parties and to ADOT in fulfilling the requirements of 49 CFR Part 23. For guidance regarding this program, refer to the Mentor-Protégé Program Guidelines available on the BECO website.

The Mentor-Protégé program is intended to increase legitimate DBE activities. But the program does not diminish the DBE rules or regulations, and participants may not circumvent these rules.

5.0 Applicability:

ADOT has established an overall annual goal for DBE participation on Federal-aid contracts. ADOT intends for the goal to be met with a combination of race conscious and race neutral efforts. Race conscious participation occurs where the contractor uses a percentage of DBEs, as defined herein, to meet the contract-specified goal. Race neutral efforts are those that are, or can be, used to assist all small businesses or increase opportunities for all small businesses. The regulation, 49 CFR 26, describes race neutral participation as when a DBE wins a prime contract through customary competitive procurement procedures or is awarded a subcontract on a prime contract that does not carry a DBE contract goal.

The contractor shall meet the goal specified herein with DBEs, or establish that it was unable to meet the goal despite making good faith efforts to do so. Prime contractors are encouraged to obtain DBE participation above and beyond any goals that may be set for this project.

The DBE provisions are applicable to all bidders including DBE bidders.

6.0 Certification and Registration:

6.01 DBE Certification:

Certification as a DBE shall be predicated on:

- (1) The completion and execution of an application for certification as a "Disadvantaged Business Enterprise".
- (2) The submission of documents pertaining to the firm(s) as stated in the application(s), including but not limited to a statement of social disadvantage and a personal financial statement.
- (3) The submission of any additional information which the Department may require to determine the firm's eligibility to participate in the DBE program.
- (4) The information obtained during the on-site visits to the offices of the firm and to active job-sites.

Applications for certification may be filed online with the Department or one of its Unified Certification Program (UCP) partner agencies at any time through the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) website at <http://www.azutracs.com>.

DBE firms and firms seeking DBE certification shall cooperate fully with requests for information relevant to the certification process. Failure or refusal to provide such information is a ground for denial or removal of certification.

ADOT is a member of the AZ Unified Certification Program (AZUCP). Only DBE firms that are certified by the AZUCP are eligible for credit on ADOT projects. A list of DBE firms certified by AZUCP is available on the internet at <http://www.azutracs.com/>. The list will indicate contact information and specialty for each DBE firm, and may be sorted in a variety of ways. However, ADOT does not guarantee the accuracy and/or completeness of this information, nor does ADOT represent that any licenses or registrations are appropriate for the work to be done.

The Department's certification of a DBE is not a representation of qualifications and/or abilities; only that the firm has met the criteria for DBE certification as outlined in 49 CFR Part 26. The contractor bears all risks of ensuring that DBE firms selected by the contractor are able to perform the work.

6.02 SBC Registration:

To comply with 49 CFR Part 26.39, ADOT's DBE Program incorporates contracting requirements to facilitate participation by Small Business Concerns (SBCs) in federally assisted contracts. SBCs are for-profit businesses authorized to do business in Arizona that meet the Small Business Administration (SBA) size standards for average annual revenue criteria for its primary North American Industry Classification System (NAICS) code.

While the SBC component of the DBE program does not require utilization goals on projects, the Department and the LPA/Subrecipient encourages contractors to utilize small businesses that are registered in AZ UTRACS on their contracts, in addition to DBEs meeting the certification requirement. The contractor may use the AZ UTRACS website to search for certified DBEs and registered SBCs that can be used on the contract. However, SBCs that are not DBEs will not be counted toward the DBE contract goal.

SBCs can register online at the AZ UTRACS website. The registration of SBCs is not a representation of qualifications and/or abilities. The contractor bears all risks of ensuring that SBC firms selected by the contractor are able to perform the work.

7.0 DBE Financial Institutions:

ADOT thoroughly investigates the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in its service area and makes reasonable efforts to use these institutions. ADOT encourages prime contractors to use such institutions on USDOT assisted contracts. However, use of DBE financial institutions will not be counted toward the DBE contract goal.

ADOT and the LPA/Subrecipient encourages prime contractors to research the Federal Reserve Board website at www.federalreserve.gov to identify minority-owned banks in Arizona derived

from the Consolidated Reports of Condition and Income filed quarterly by banks (FFIEC 031 and 041) and from other information on the Board's National Information Center database.

8.0 Time is of the Essence:

TIME IS OF THE ESSENCE IN RESPECT TO THE DBE PROVISIONS.

9.0 Computation of Time:

In computing any period of time described in this DBE special provision, such as calendar days, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal or State holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal or State holiday. In circumstances where the LPA/Subrecipient Procurement Office is closed for all or part of the last day, the period extends to the next day on which the LPA/Subrecipient Procurement Office is open.

10.0 Contractor and Subcontractor Requirements:

10.01 General:

The contractor shall establish a DBE program that will ensure nondiscrimination in the award and administration of contracts and subcontracts.

Agreements between the bidder and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders are prohibited.

10.02 DBE Liaison:

The contractor shall designate a DBE Liaison responsible for the administration of the contractor's DBE program. The name of the designated DBE Liaison shall be included in the DBE Intended Participation Affidavit Summary.

11.0 Bidders/Proposers List and AZ UTRACS Registration Requirement:

Under Title 49 CFR of the Code of Federal Regulations, Part 26.11, DOTs are required to collect certain information from all contractors and subcontractors who seek to work on federally-assisted contracts in order to set overall and contract DBE goals. ADOT collects this information through a Bidders/Proposers List when firms register their companies on the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) web portal at <http://www.azutracs.com/> a centralized database for companies that seek to do business with ADOT and the LPA/Subrecipient. This information will be maintained as confidential to the extent allowed by federal and state law.

Prime contractors and all subcontractors, including DBEs, must be registered in AZ UTRACS. Bidders may verify that their firm and each subcontractors is registered using the AZ UTRACS website.

Bidders may obtain additional information at the AZ UTRACS website or by contacting the LPA/Subrecipient.

Bidders shall create the Bidders/Proposers List in the AZ UTRACS by selecting all subcontractors, service providers, manufacturers and suppliers that expressed interest or submitted bids, proposals or quotes for this contract. The Bidders/Proposers List form must be complete and must include the names for all subcontractors, service providers, manufacturers and suppliers regardless of the bidders' intentions to use those firms on the project.

All bidders must complete the Bidders/Proposers List online at AZ UTRACS whether they are the apparent low bidder or not. A confirmation email will be generated by the system. The bidders shall submit to the LPA/Subrecipient a copy of the email confirmation no later than 4:00 p.m. on the fifth calendar day following the bid opening. Faxed copies are acceptable.

FAILURE TO SUBMIT THE REQUIRED BIDDERS/PROPOSERS LIST TO THE LPA/SUBRECIPIENT PROCUREMENT OFFICE BY THE STATED TIME AND IN THE MANNER HEREIN SPECIFIED SHALL BE CAUSE FOR THE BIDDER BEING DEEMED INELIGIBLE FOR AWARD OF THE CONTRACT.

12.0 DBE Goals:

The minimum goal for participation by DBEs on this project is as follows:

10.62% _____ Percent

The percentage of DBE participation shall be based on the total construction bid.

13.0 Submission with Bids:

All bidders are required to certify in their bid proposal on the "Disadvantaged Business Enterprise Goal Assurance" certificate either:

- (1) The bidder has met the established DBE goal and arrangements with certified DBEs have been made prior to the submission of the bid, or
- (2) The bidder has been unable to meet the established DBE goal prior to the submission of the bid and has made good faith efforts to do so.

For the purpose of this section, 'arrangements' means, at a minimum, agreement between the bidder and the certified DBE, either written or oral, on unit prices and scope of work.

This certificate may not be revised or corrected after submission of the bid. If the bidder certifies that it has met the goal, the bidder cannot change its position after submission of the bid and submit documentation of a good faith effort. If the bidder certifies that it has been unable to meet the goal and has made a good faith effort, the bidder cannot change its

position after submission of the bid and claim to have met or be able to meet the established goal.

Bids submitted with altered, incomplete or unsigned certificates will be considered non-responsive. Bids submitted with certifications on forms other than those furnished by the LPA/Subrecipient Procurement Office will be considered non-responsive.

Certifications on forms other than those furnished by the LPA/Subrecipient will be considered non-responsive.

14.0 Bidder Meeting DBE Goal:

14.01 General:

To be considered responsible and eligible for award of a contract, a bidder who has indicated in its bid that it met the DBE goal must submit the information described in this Subsection no later than five calendar days after bid opening.

If the bid of the apparent low bidder is rejected for any reason, the next low bidder may become the apparent low bidder only if it had submitted the information described in this Subsection or Subsection 15.01, as appropriate, no later than five calendar days after bid opening.

In order to be awarded this contract, a bidder must establish either (1) that it has met the DBE participation goal of the contract or (2) that it has made adequate good faith efforts (GFE) to meet the DBE goal. This requirement is in addition to all other pre-award requirements.

If the apparent low bidder indicates in the bid that it has met the DBE goal, the bidder shall submit a DBE Intended Participation Affidavit for each individual DBE, and the Intended Participation Affidavit Summary as follows:

- (1) The DBE Intended Participation Affidavit for each individual DBE and the Intended Participation Affidavit Summary must be received by LPA/Subrecipient Procurement Office no later than 4:00 P.M. on the fifth calendar day following the bid opening. Copies of these forms are available from LPA/Subrecipient. The affidavits and Summary shall indicate that the bidder has met DBE goal if this was indicated on the submittal with the bid.
- (2) The Intended Participation Affidavit Summary and the DBE Intended Participation Affidavit for each individual DBE must be accurate and complete in every detail and must be signed by an officer of the contractor(s). Percentages and dollar amounts must be accurate. Percentages shall be listed to two decimal places. The DBE Intended Participation Affidavit Summary must be submitted listing all the DBEs intended to be used and the creditable amounts.

- (3) A separate DBE Intended Participation Affidavit must be submitted for each DBE used to meet the goal of the project. The bidder shall indicate each DBE's name,—a description of the work the DBE will perform, bid item number, proposed subcontract amount, and the NAICS code applicable to the kind of work the firm would perform on the contract. A list of certified DBEs with their respective NAICS codes can be located on the DBE Directory at AZ UTRACS website. All partial items must be explained. If not, the DBE will be considered to be responsible for the entire item. The intended DBE must complete and sign the form to confirm its participation in the contract.
- (4) The affidavits and summary may be submitted electronically through email to the LPA/Subrecipient Procurement Office.
- (5) A bidder must determine DBE credit in accordance with DBE Subsection 18 (Crediting DBE Participation Toward Meeting Goals). The affidavit will be reviewed, and approved or rejected by the LPA/Subrecipient Procurement Office, with BECO concurrence.
- (6) Only those DBE firms certified by the Arizona Unified Certification Program (AZUCP) as of the deadline for bid submittal will be considered for DBE credit. It shall be the bidder's responsibility to ascertain the certification status of designated DBEs.
- (7) All DBE commitment amounts must be finalized between the DBE subcontractor and the bidder prior to the deadline for affidavit submittal. Bidders shall not inflate DBE awards in order to meet contract goals.
- (8) The bidder bears the risk of late submission or late delivery by the postal service or a delivery service. Affidavits and Summary received by the LPA/Subrecipient Procurement Office after 4:00 P.M. on the fifth calendar day following the bid opening will not be accepted.
- (9) Reduction of DBE commitments after affidavit submittal and prior to execution of the contract without good cause will result in the bid being rejected or LPA/Subrecipient rescinding any award. Scheduling conflicts are not necessarily evidence of good cause as this should have been considered during pre-bid negotiations. The contractor is responsible for ensuring the DBE is available to meet the requirements of the contract.

14.02 Failure to Comply:

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected.

15.0 Documented Good Faith Effort:

15.01 General:

To be considered responsible and eligible for award of a contract a bidder, who has indicated in its bid that it was unable to meet the DBE goal but made good faith efforts must submit the information described in this Subsection no later than five calendar days after bid opening.

If the bid of the apparent low bidder is rejected for any reason, the next low bidder may become the apparent low bidder only if it had submitted the information described in this Subsection or Subsection 14.01, as appropriate, no later than five calendar days after bid opening.

Failure to demonstrate good faith efforts to the satisfaction of the LPA/Subrecipient with concurrence of BECO will result in the rejection of the bid. In the event that the low bid is rejected, the Department will consider award of the contract to the next responsible and responsive bidder. To be considered responsive, the bidder must have submitted the information described in either Subsection 14 or 15 of this DBE special provision, no later than five calendar days after bid opening.

The bidder's good faith effort documentation must be submitted to and received by the LPA/Subrecipient Procurement Office by 4:00 P.M. on the fifth calendar day after the bids are opened. Good faith effort documentation may be submitted electronically through email to the LPA/Subrecipient Procurement Office. Good faith effort documentation submitted after the time specified will not be accepted.

The bidder bears the risk of late submission or late delivery by the postal service or a delivery service.

The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract. A generalized assertion that the contractor received multiple quotes is not sufficient unless copies of those quotes are provided.

Bidders are encouraged to review Appendix A of 49 CFR Part 26.

Useful information related to encouraging DBE participation and documented good faith efforts can be found in the "Good Faith Effort Guide" and other documents made available on the internet at BECO's website. The information provided in the "Good Faith Effort Guide" does not replace the specifications; bidders must comply with the requirements of this specification.

In order to be awarded a contract on the basis of good faith efforts, a bidder must show that it took all necessary and reasonable steps to achieve the DBE goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful. The quality, quantity, and intensity of the different kinds of efforts the bidder made will be evaluated. The efforts employed by the bidder should be those that one could reasonably expect a bidder to make if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE goal. Mere pro forma efforts are not sufficient good faith efforts to meet the DBE contract requirements.

The bidder shall, as a minimum, seek DBEs in the same geographic area in which it generally seeks subcontractors for a given project. If the bidder cannot meet the goals using DBEs from this geographic area, the bidder, as part of its effort to meet the goals, shall expand its search to a reasonably wider geographic area.

The following is a list of types of efforts a bidder must address when submitting good faith effort documentation:

- (1) Contacting the LPA/Subrecipient and BECO prior to the submission of bids, either by e-mail, or by telephone, to inform of the firm's difficulty in meeting the DBE goals on a given project, and requesting assistance. The bidder must document its contact with LPA/Subrecipient and BECO, and indicate the type of contact, the date and time of the contact, the name of the person(s) contacted, and any details related to the communication. The contact must be made in sufficient time before bid submission to allow the LPA/Subrecipient and BECO to provide effective assistance. The bidder will not be considered to have made good faith efforts if the bidder failed to contact LPA/Subrecipient and BECO.
- (2) Conducting market research to identify small business contractors and suppliers, and soliciting, through all reasonable and available means the interest of all certified DBEs who have the capability to perform the work of the contract. This may include attendance at pre-bid meetings and business matchmaking meetings and events, advertising and/or providing written notices, posting of "Notices of Sources Sought" and/or "Requests for Proposals" at reasonable locations, including the contractor's website, written notices or emails to all DBEs listed in the Department's directory of transportation firms that specialize in areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project. The bidder should solicit this interest as early in the acquisition process as practicable to allow DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow-up initial solicitations.
- (3) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible time frames for performance and delivery schedules in a manner that encourages and facilitates DBE participation.
- (4) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist DBEs in responding to solicitations.

- (5) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to the DBE subcontractors and suppliers, and to select those portions of work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided from the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform work.

Mailings to DBEs requesting bids are not alone sufficient to constitute good faith effort.

A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. However, prime contractors are not required to accept higher quotes from DBEs if the price difference is excessive or unreasonable. Documentation, such as copies of all other bids or quotes, must be submitted.

- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations or associations and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.
- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. The contractor must submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract. A generalized assertion that the contractor has received multiple quotes is not sufficient unless copies of those quotes are provided. The Department may contact rejected DBEs as part of its investigation.

However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

In determining whether a bidder has made good faith efforts, the LPA/Subrecipient will review the documented efforts of the contractor and will review the performance of other bidders in meeting the contract goal.

A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

The LPA/Subrecipient will evaluate the submittal and make a determination, with BECO concurrence, on whether in fact good faith efforts have been demonstrated consistent with the specifications and the Federal regulations, 49 CFR 26, Appendix A.

15.02 Failure to Comply:

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected.

15.03 Appeal and Protest of Good Faith Effort Determination:

Any interested party may appeal the determination of LPA/Subrecipient to the State Engineer. That appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. The protest must be received by the State Engineer no later than seven calendar days after the decision of the LPA/Subrecipient. Copies of the protest shall be sent by the protestant to the LPA/Subrecipient and every bidder, at the same time the protest is submitted to the State Engineer. Any bidder whose bid is rejected for failure to meet the goal or make GFE will be given the opportunity to meet in person with the State Engineer, at the bidder's written request included in the protest, to discuss the issue of whether it met the goal or made adequate good faith efforts to do so.

Any interested party may submit a response to the appeal no later than seven calendar days after the appeal. Responses from interested parties must also be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. Any interested party submitting such response shall also provide a copy of its response to the LPA/Subrecipient and every bidder, at the same time the protest is submitted to the State Engineer. The State Engineer shall promptly consider any appeals under this subsection and shall notify the LPA/Subrecipient and all bidders in writing of the State Engineer's findings and decision.

In accordance with 49 CFR 26.53(d)(5), the result of the State Engineer's decision is not subject to administrative appeal to the USDOT.

16.0 Rejection of Low Bid:

If, for any reason, the bid of the apparent low bidder is rejected, a new apparent low bidder will be identified. The LPA/Subrecipient Procurement Office will notify the new apparent low bidder.

A bidder may become the apparent low bidder only if it had submitted the information described in Subsection 14.01 or 15.01, as appropriate, no later than five calendar days after bid opening.

17.0 Payment Reporting:

The contractor shall report on a monthly basis indicating the amounts paid to all subcontractors, of all tiers, working on the project. Reporting shall be in accordance with Prompt Pay and Payment Provision Reporting requirements section of the contract specifications.

18.0 Crediting DBE Participation Toward Meeting Goals:

18.01 General Requirements:

To count toward meeting a goal, the DBE firm must be certified as of the deadline for submission of bids in each NAICS code applicable to the kind of work the firm will perform on the contract. NAICS for each DBE can be found on the AZ UTRACS under the Firm Directory. General descriptions of all NAICS codes can be found at www.naics.com.

Credit towards the contractor's DBE goal is given only after the DBE has been paid for the work performed.

The entire amount of a contract that is performed by the DBE's own forces, including the cost of supplies and materials purchased by the DBE for the work on the contract and equipment leased by the DBE will be credited toward DBE participation. Supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate will not be credited toward DBE participation. Work included in a force account item cannot be listed on the DBE Intended Participation Affidavit.

The contractor bears the responsibility to determine whether the DBE possesses the proper contractor's license(s) to perform the work and, if DBE credit is requested, that the DBE subcontractor is certified for the requested type of work.

If a DBE cannot complete its work due to failure to obtain or maintain its licensing, the contractor bears the responsibility to notify the LPA/Subrecipient immediately after the contractor becomes aware of the situation, and request approval to replace the DBE with another DBE. The

contractor shall follow the DBE termination/substitution requirements described in Subsection 24.0 of these DBE provisions.

The Department's certification is not a representation of a DBE's qualifications and/or abilities. The contractor bears all risks that the DBE may not be able to perform its work for any reason.

A DBE may participate as a prime contractor, subcontractor, joint venture partner with either a prime contractor or a subcontractor, or as a vendor of materials or supplies. A DBE joint venture partner shall be responsible for a clearly defined portion of the work to be performed, in addition to meeting the requirements for ownership and control.

The dollar amount of work to be accomplished by DBEs, including partial amount of a lump sum or other similar item, shall be on the basis of subcontract, purchase order, hourly rate, rate per ton, etc., as agreed to between parties.

With the exception of bond premiums, all work must be attributed to specific bid items. Where work applies to several items, the DBE contracting arrangement must specify unit price and amount attributable to each bid item. DBE credit for any individual item of work performed by the DBE shall be the lesser of the amount to be paid to the DBE or the prime contractor's bid price. If the amount bid by the DBE on any item exceeds the prime contractor's bid amount, the prime contractor may not obtain credit by attributing the excess to other items.

Where more than one DBE is engaged to perform parts of an item (for example, supply and installation), the total amount payable to the DBEs will not be considered in excess of the prime contractor's bid amount for that item.

Bond premiums may be stated separately, so long as the arrangement between the prime contractor and the DBE provides for separate payment not to exceed the price charged by the bonding company.

DBE credit may be obtained only for specific work done for the project, supply of equipment specifically for physical work on the project, or supply of materials to be incorporated in the work. DBE credit will not be allowed for costs such as overhead items, capital expenditures (for example, purchase of equipment), and office items.

If a DBE performs part of an item (for example, installation of materials purchased by a Non-DBE), the DBE credit shall not exceed the lesser of (1) the DBE's contract or (2) the prime contractor's bid for the item, less a reasonable deduction for the portion performed by the Non-DBE.

When a DBE performs as a partner in a joint venture, only that portion of the total dollar value of the contract which is clearly and distinctly performed by the DBE's own forces can be credited toward the DBE goal.

The contractor may credit second-tier subcontracts issued to DBEs by non-DBE subcontractors. Any second-tier subcontract to a DBE used to meet the goal must meet the requirements of a first-tier DBE subcontract.

A prime contractor may credit the entire amount of that portion of a construction contract that is performed by the DBE's own forces. The cost of supplies and materials obtained by the DBE for the work of the contract can be included so long as that cost is reasonable. Leased equipment may also be included. No credit is permitted for supplies purchased or equipment leased from the prime contractor or its affiliate(s).

When a DBE subcontracts a part of the work of its contract to another firm, the value of the subcontract may be credited towards the DBE goal only if the DBE's subcontractor is itself a DBE and performs the work with its own forces. Work that a DBE subcontracts to a non-DBE firm does not count toward a DBE goal.

A prime contractor may credit the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services.

18.02 DBE Prime Contractor:

When a certified DBE firm bids on a contract that contains a DBE goal, the DBE firm is responsible for meeting the DBE goal on the contract or making good faith efforts to meet the goal, just like any other bidder. In most cases, a DBE bidder on a contract will meet the DBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the DBE bidder or any other DBE subcontractors and DBE suppliers will count toward the DBE goal. The DBE bidder shall list itself along with any DBE subcontractors and suppliers, on the DBE Intended Participation Affidavit and Summary in order to receive credit toward the DBE goal.

18.03 Effect of Loss of DBE Eligibility:

If a DBE is deemed ineligible (decertified) or suspended in accordance with 49 CFR 26.87 and 26.88, the DBE may not be considered to meet a contract goal on a new contract, but may be considered to meet the contract goal under a subcontract that was executed before the DBE suspension or decertification is effective.

When a committed DBE firm or a DBE prime contractor loses its DBE eligibility and a subcontract or contract has not been executed before a decertification notice is issued to the DBE firm by its certifying agency, the ineligible firm does not count toward the contract goal. The contractor must meet the contract goal with an eligible DBE firm or firms or demonstrate good faith effort. When a subcontract is executed with the DBE firm before the Department notified the firm of its ineligibility, the contractor may continue to use the firm on the contract and may continue to receive credit toward the DBE goal for the firm's work.

18.04 Notifying the Contractor of DBE Certification Status:

Each DBE contract of any tier shall require any DBE subcontractor or supplier that is either decertified or certified during the term of the contract to immediately notify the contractor and all parties to the DBE contract in writing, with the date of decertification or certification. The contractor shall require that this provision be incorporated in any contract of any tier in which a DBE is a participant.

18.05 Police Officers:

DBE credit will not be permitted for procuring DPS officers. For projects on which officers from other agencies are supplied, DBE credit will be given only for the broker fees charged, and will not include amounts paid to the officers. The broker fees must be reasonable.

18.06 Commercially Useful Function:

A prime contractor can credit expenditures to a DBE subcontractor toward DBE goals only if the DBE performs a Commercially Useful Function (CUF).

A DBE performs a CUF when it is responsible for execution of the work of a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself that it uses on the project. To determine whether a DBE is performing a commercially useful function, the LPA/Subrecipient will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

A DBE will not be considered to perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, the LPA/Subrecipient will examine similar transactions, particularly those in which DBEs do not participate.

If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the LPA/Subrecipient will presume that the DBE is not performing a commercially useful function.

When a DBE is presumed not to be performing a commercially useful function as provided above, the DBE may present evidence to rebut this presumption. The LPA/Subrecipient will

determine if the firm is performing a CUF given the type of work involved and normal industry practices.

The LPA/Subrecipient will notify the contractor, in writing, if it determines that the contractor's DBE subcontractor is not performing a CUF. The contractor will be notified within seven calendar days of the LPA/Subrecipient's decision.

Decisions on CUF may be appealed to the ADOT BECO. The appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the ADOT BECO. The appeal must be received by the ADOT BECO no later than seven calendar days after the decision of LPA/Subrecipient. LPA/Subrecipient decision remains in effect unless and until ADOT BECO reverses or modifies LPA/Subrecipient decision. ADOT BECO will promptly consider any appeals under this subsection and notify the contractor of the ADOT BECO findings and decisions. Decisions on CUF matters are not administratively appealable to USDOT.

The LPA/Subrecipient will conduct project site visits on the contract to confirm that DBEs are performing a CUF. The contractor shall cooperate during the site visits and the LPA/Subrecipient staff will make every effort not to disrupt work on the project.

18.07 Trucking:

LPA/Subrecipient will use the following factors in determining whether a DBE trucking company is performing a commercially useful function. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.

The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract on every day that credit is to be given for trucking.

The contractor will receive credit for the total value of transportation services provided by the DBE using trucks it owns, insures and operates, and using drivers it employs.

The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks with drivers from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE leased trucks with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks with drivers receives credit only for the fee or commission paid to the DBE as a result of the lease agreement.

Example: DBE Firm X uses two of its own trucks on a contract. It leases two trucks from DBE Firm Y and six trucks from non-DBE firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. DBE credit could be awarded only for the fees or commissions pertaining to the remaining trucks Firm X receives as a result of the lease with Firm Z.

The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

Example: DBE Firm X uses two of its own trucks on a contract. It leases three additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all five trucks.

For purposes of this section, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE. Credit will be allowed only for those lease costs related to the time each truck is devoted to the project.

DBE credit for supplying paving grade asphalt and other asphalt products will only be permitted for standard industry hauling costs, and only if the DBE is owner or lessee of the equipment and trucks. Leases for trucks must be long term (extending for a fixed time period and not related to time for contract performance) and must include all attendant responsibilities such as insurance, titling, hazardous waste requirements, and payment of drivers.

18.08 Materials and Supplies:

LPA/Subrecipient will credit expenditures with DBEs for material and supplies towards the DBE goal as follows. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies is credited. A manufacturer is defined as a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract, and of the general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies is credited. A DBE regular dealer is defined as a firm that owns, operates, or maintains a store or warehouse or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established,

regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A firm may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, stone or asphalt without owning, operating, or maintaining a place of business, as provided above, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement, and not on an ad-hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph and the paragraph above.

With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the LPA/Subrecipient will credit the entire amount of the fees or commissions charged by the DBE for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted toward the DBE goal.

The LPA/Subrecipient will credit expenditures with DBEs for material and supplies (e.g. whether a firm is acting as a regular dealer or a transaction expeditor) towards the DBE goal on a contract-by-contract basis. The fact that a DBE firm qualifies under a classification (manufacturer, regular dealer or supplier) for one contract does not mean it will qualify for the same classification on another contract. The bidder shall be responsible for verifying whether a DBE qualifies as a DBE manufacturer, regular dealer or supplier. The bidder may contact the LPA/Subrecipient for assistance in this determination.

19.0 Effect of Contract Changes:

If for any reason it becomes apparent that the DBE goal will not be met then the contractor shall: (1) immediately notify the LPA/Subrecipient of the potential or actual decrease in DBE compensation, and (2) make good faith efforts to obtain DBE participation to meet or exceed the DBE contract goal. Good faith efforts required under the provisions of this section may vary, depending on the time available, the nature of the change, who initiated the change, and other factors as determined by LPA/Subrecipient.

LPA/Subrecipient will approve or deny the contractor's good faith efforts with BECO concurrence.

The contractor is not required to take work committed to another subcontractor and assign it to a DBE subcontractor in order to meet the committed DBE percentage.

If the resulting change increases the scope or quantity of work being done by a DBE subcontractor, the DBE shall be given the opportunity to complete the additional work and receive additional compensation beyond their original subcontract amount.

20.0 DBE Participation Above the Goal (Race Neutral Participation):

Additional DBE participation above the DBE participation required to meet the contract DBE goal is an important aspect of the Department's DBE program. The contractor is strongly encouraged to use additional DBEs above the DBE goal requirement in the contract to assist the Department in meeting its overall DBE goal and help the Department to meet the maximum feasible portion of its DBE goals through race neutral participation as outlined in 49 CFR Part 26.

There are fewer administrative requirements on the part of the contractor when using race neutral DBEs (DBEs not listed on the DBE Intended Participation Affidavit Summary). For example, if a DBE is not listed on the DBE Intended Participation Affidavit Summary, the DBE does not have to submit an Affidavit, and the subcontract approval process follows the same process of any other subcontract. The contractor does not have to replace the race neutral DBE with another DBE subcontractor if the race neutral DBE fails to perform. Therefore these DBEs are treated as any other subcontractor on the project.

21.0 Required Provisions for DBE Subcontracts:

All subcontracts of any tier, all supply contracts, and any other contracts in which a DBE is a party shall include, as a physical attachment, DBE Subcontract Compliance Assurances available from the LPA/Subrecipient.

Contractors executing agreements with subcontractors, DBE or non-DBE, that materially modify federal regulation and state statutes such as, prompt payment and retention requirements, through subcontract terms and conditions will be found in breach of contract which may result in termination of the contract, or any other such remedy as the LPA/Subrecipient and ADOT deem appropriate as outlined in DBE Subsection 2.0.

LPA/Subrecipient reserves the right to conduct random reviews of DBE and non-DBE subcontract documentation to ensure compliance with federal requirements.

The contractor shall ensure that all subcontracts or agreements with DBEs to supply labor or materials require that the subcontract and all lower tier subcontracts be performed in accordance with 49 CFR Part 26.

The Contractor shall provide electronic copies of signed subcontract agreements for all DBE Subcontracts listed on the DBE Intended Participation Affidavit Summary by uploading them within 15 calendar days of an approved contract to the LPA DBE System.

22.0 Contract Performance:

Contract items of work designated by the contractor to be awarded to DBEs shall be performed by the designated DBE or a LPA/Subrecipient, with BECO concurrence, approved DBE substitute. DBE contract work items shall not be performed by the contractor, or a non-DBE subcontractor without prior approval by the LPA/Subrecipient, with BECO concurrence. The DBE must perform a commercially useful function; that is, the DBE must manage, perform, and supervise a distinct element of work.

The contractor is required to use DBEs identified to meet the contract goal, so the prime contractor is responsible for ensuring that the DBEs are available to meet scheduling, work and other requirements on the contract.

LPA/Subrecipient will conduct reviews to ensure compliance with DBE requirements. The reviews may include, among other activities, interview of DBEs and their employees and the contractor and its employees. The contractor shall cooperate in the review and make its employees available. The contractor shall inform the LPA/Subrecipient in advance when each DBE will be working on the project to help facilitate reviews.

LPA/Subrecipient reserves the right to inspect all records of the contractor and all records of the DBEs and non-DBE subcontractors concerning this contract. The contractor must make all documents related to all contracts available to the LPA/Subrecipient upon request.

The contractor shall provide to the LPA/Subrecipient, at the pre-construction conference, copies of all completed, approved, and signed subcontracts, purchase orders, invoices, etc., with all committed DBEs. These documents shall include the AZ UTRACS Registration number for the subcontractor or materials supplier.

Use of every DBE listed on the DBE Intended Participation Affidavit Summary is a condition of this contract. The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed on the Intended Participation Affidavit Summary unless the contractor obtains written consent from the LPA/Subrecipient with BECO concurrence. The contractor shall not be entitled to any payment for work or material that is not performed or supplied by the listed DBE, unless the contractor obtains written consent from the LPA/Subrecipient with BECO concurrence.

23.0 Joint Checks:

23.01 Requirements:

A DBE subcontractor and a material supplier (or equipment supplier) may request permission for the use of joint checks for payments from the prime contractor to the DBE subcontractor and the supplier. Joint checks may be issued only if all the conditions in this subsection are met.

1. The DBE subcontractor must be independent from the prime contractor and the supplier, and must perform a commercially useful function. The DBE subcontractor must be responsible for negotiating the price of the material, determining quality and quantity, ordering the materials, installing (where applicable), and paying for the material. The DBE subcontractor may not be utilized as an extra participant in a transaction, contract, or project in order to obtain the appearance of DBE participation.
2. The use of joint checks will be allowed only if the prime contractor, DBE subcontractor, and material supplier establish that the use of joint checks in similar transactions is a

commonly recognized business practice in the industry, particularly with respect to similar transactions in which DBE's do not participate.

3. A material or supply contract may not bear an excessive ratio relative to the DBE subcontractor's normal capacity.
4. There may not be any exclusive arrangement between one prime and one DBE in the use of joint checks that may bring into question whether the DBE is independent of the prime contractor.
5. Any arrangement for joint checks must be in writing, and for a specific term (for example, one year, or a specified number of months) that does not exceed a reasonable time to establish a suitable credit line with the supplier.
6. The prime contractor may act solely as the payer of the joint check, and may not have responsibility for establishing the terms of the agreement between the DBE subcontractor and the supplier.
7. The DBE must be responsible for receiving the check from the prime contractor and delivering the check to the supplier.
8. The prime contractor cannot require the DBE subcontractor to use a specific supplier, and the prime contractor may not participate in the negotiation of unit prices between the DBE subcontractor and the supplier.

23.02 Procedure and Compliance:

1. BECO must approve the agreement for the use of joint checks in writing before any joint checks are issued. The prime contractor shall submit a DBE joint check request form, available from the BECO website, along with the joint check agreement, to LPA/Subrecipient and BECO through email within seven calendar days from the time the subcontract is executed.
2. After obtaining authorization from BECO for the use of joint checks, the prime contractor, the DBE, and the supplier must retain documentation to allow for efficient monitoring of the agreement by the LPA/Subrecipient.
3. Copies of canceled checks must be submitted, with the payment information for the period in which the joint check was issued, electronically through email to LPA/Subrecipient Procurement Office and made available for review at the time of the onsite CUF review. The prime contractor, DBE, and supplier each have an independent duty to report to the LPA/Subrecipient in the case of any change from the approved joint check arrangement.

4. Any failure to comply will be considered by the LPA/Subrecipient, with ADOT concurrence to be a material breach of this contract and will subject the prime contractor, DBE, and supplier to contract remedies and, in the case of serious violations, a potential for termination of the contract, or other remedies which may prevent future participation by the offending party.

24.0 DBE Termination/Substitution:

24.01 General Requirements:

The contractor shall make all reasonable efforts to avoid terminating or substituting a DBE listed on the DBE Intended Participation Affidavit Summary. At a minimum, the contractor shall negotiate in good faith, give timely notices and/or extend deadlines to the extent that it will not jeopardize the contract with the LPA/Subrecipient. Reasonable methods to resolve performance disputes must be applied and documentation provided to LPA/Subrecipient before attempting to substitute or terminate a DBE.

24.02 Contractor Notice of Termination/Substitution:

All terminations, substitutions, and reductions in scope of work to be performed by DBEs listed on the DBE Intended Participation Affidavit Summary must be approved in writing by the LPA/Subrecipient, with BECO concurrence. The contractor shall contact the LPA/Subrecipient within 24 hours from the first sign of any reason for potential DBE termination/substitution.

The contractor shall not terminate a DBE subcontractor listed on the DBE Intended Participation Affidavit or complete the work contracted to the DBE with its own forces or with a non-DBE firm without the LPA/Subrecipient written consent and BECO concurrence. Before submitting a formal request to the LPA/Subrecipient for DBE termination/substitution, the contractor shall give written notice to the DBE subcontractor with a copy to the LPA/Subrecipient of its intent to terminate or substitute the DBE identifying the reason for the action. The notice shall include the deadline for the DBE to submit a written response advising the contractor, LPA/Subrecipient of its position which shall be a minimum of five calendar days after the notice is given. Before making a determination for approval regarding the contractor's termination and substitution request, the LPA/Subrecipient, with BECO concurrence, will consider both the contractor's request and the DBE firm's response.

24.03 Contractor Request for Termination/Substitution:

The contractor shall formally request the termination or substitution of a DBE listed on the DBE Intended Participation Affidavit Summary by submitting the DBE Termination/Substitution Request form with supporting documentation to the LPA/Subrecipient; form is available from the LPA/Subrecipient. The submission shall include the following information:

- 1) The date the contractor determined the DBE to be unwilling, unable, or ineligible to perform.

- 2) A brief statement of facts describing the situation and citing specific actions or inaction by the DBE firm giving rise to contractor's assertion that the DBE firm is unwilling, unable, or ineligible to perform.
- 3) A brief statement of the good faith efforts undertaken by the contractor to enable the DBE firm to perform.
- 4) The total dollar amount currently paid for work performed by the DBE firm.
- 5) The total dollar amount remaining to be paid to the DBE firm for work completed, but for which the DBE firm has not received payment, and over which the contractor and the DBE firm have no dispute.
- 6) The projected date that the contractor requires a substitution or replacement DBE to commence work, if consent is granted to the request.
- 7) The DBE's response to the notice of intent to terminate. If there is no response from the DBE within the time allowed in the notice of intent to terminate, the contractor shall state that no response was received.

Written consent for terminating any DBE listed on the DBE Intended Participation Affidavit Summary will be granted only where the contractor can demonstrate good cause showing that the DBE is unable, unwilling, or ineligible to perform. Such written consent to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE. Termination or substitution of a DBE listed on the DBE Intended Participation Affidavit Summary will not be allowed based solely on a contractor's ability to negotiate a more advantageous contract with another subcontractor. Prior to making a determination for approval regarding the contractor's termination and substitution request, the LPA/Subrecipient, with BECO concurrence, will consider both the contractor's request and the DBE firm's response.

24.04 Good Cause:

The LPA/Subrecipient, with BECO concurrence, will make the determination of good cause by providing written consent to the contractor after evaluating the contractor's good cause to terminate or substitute a DBE firm. Good cause for this purpose includes the following in relation to the listed DBE subcontractor:

1. Fails or refuses to execute a written contract.
2. Fails or refuses to perform the work of its subcontract in a way consistent with normal industry practice standards. However, good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
3. Fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond/insurance requirements.
4. Becomes bankrupt, insolvent, or exhibits credit unworthiness.
5. Is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to federal or state law.
6. Is not a responsible contractor.
7. Voluntarily withdraws from the project and provides written notice of its withdrawal to the Department.

8. Is ineligible to receive DBE credit for the type of work required.
9. A DBE owner dies or becomes disabled with the result that the firm is unable to complete its work on the contract.
10. Other documented good cause that the BECO determines compels the termination or substitution of the DBE subcontractor.

24.05 DBE Termination/Substitution Good Faith Effort:

If the LPA/Subrecipient approves the termination of a DBE, the contractor shall make good faith efforts to find another DBE subcontractor to substitute for the original DBE. The good faith efforts as identified in DBE Subsection 15.0 shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. If a replacement DBE is not identified for the original DBE's work, the good faith efforts shall be documented and provided, upon request, to the LPA/Subrecipient within seven calendar days from the date of the request.

A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find the replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

The termination of a DBE firm shall not relieve the contractor of its obligations under this Special Provision, and the unpaid portion of the terminated DBE firm's subcontract will not be counted toward the DBE goal.

If the LPA/Subrecipient has eliminated items of work subcontracted to a committed DBE, the prime contractor shall still make good faith efforts to replace the DBE with another DBE to the extent necessary to meet the goal. The LPA/Subrecipient will review the quality, thoroughness, and intensity of those efforts and give consideration to when the change was made, the nature of the change, and other factors as determined by the LPA/Subrecipient.

When a DBE substitution has been approved by the LPA/Subrecipient and concurred by BECO, the contractor shall submit an amended DBE Intended Participation Affidavit and Intended Participation Affidavit Summary to LPA/Subrecipient Procurement Office for approval with the substitute DBE's name, description of work, NAICS code, AZ UTRACS registration number, and dollar value of work. Approval from LPA/Subrecipient with BECO concurrence must be obtained prior to the substituted DBE beginning work.

24.06 Sanctions:

Failure by the contractor to carry out the requirements of these DBE Termination/Substitution specifications is a material breach of contract and will result in such remedies as the LPA/Subrecipient deems appropriate, with ADOT concurrence, which will include, but are not limited to the assessment of liquidated damages. The LPA/Subrecipient will deduct from monies due or becoming due to the contractor, the dollar amount of the wrongfully

substituted/replaced DBE subcontract plus 25 percent of the amount remaining to be paid to the DBE as liquidated damages. These liquidated damages shall be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

25.0 Certification of Final DBE Payments:

The contractor's achievement of the goal is measured by actual payments made to the DBE. The contractor shall submit the "Certification of Final DBE Payments" form for each DBE firm working on the contract. This form shall be signed by the contractor and the relevant DBE, and submitted to the LPA/Subrecipient no later than 30 days after the DBE completes its work.

The LPA/Subrecipient and ADOT will use this certification and other information available to determine applicable DBE credit allowed to date by the contractor and the extent to which the DBE firms were fully paid for that work. By the act of filing the forms, the contractor acknowledges that the information is supplied in order to justify the payment of state and federal funds to the contractor.

The contractor will not be released from the obligations of the contract until the "Certification of Final DBE Payments" forms are received and deemed acceptable by the LPA/Subrecipient.

26.0 Sanctions for Not Meeting Contract DBE Goal:

If the LPA/Subrecipient determines, with BECO concurrence, that the contractor has, without justification, not met the established DBE goal the LPA/Subrecipient will, at its discretion, deduct up to two times the amount of the unattained portion of established DBE goal from monies due or becoming due the contractor as liquidated damages, based on the circumstances of the noncompliance.

The LPA/Subrecipient, with BECO concurrence, will determine whether liquidated damages will be assessed and the amount of the liquidated damages. The LPA/Subrecipient will consider whether there have been other violations on this or other contracts, whether the failure was due to circumstances beyond the control of the contractor, whether the contractor has made good faith efforts to meet the goal, and other appropriate circumstances.

The contractor may, within 15 calendar days of receipt of the decision of the LPA/Subrecipient escalate the decision to the State Engineer. If the contractor does not escalate the decision of the LPA/Subrecipient, in writing, within 15 calendar days of receipt of the decision, the contractor will be deemed to have accepted the decision and there will be no further remedy for the contractor.

In addition to any other sanctions, willful failure of the contractor, DBE or other subcontractor to comply with this contract or with the Federal DBE regulations may result in disqualification from further contracting, subcontracting, or other participation in the Department's and LPA/Subrecipient's projects.

27.0 False, Fraudulent, or Dishonest Conduct:

In addition to any other remedies or actions, the Department will bring to the attention of the US Department of Transportation any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take steps such as referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General for possible initiation of suspension and debarment proceedings against the offending parties or application of "Program Fraud and Civil Penalties" rules provided in 49 CFR Part 31.

6.0

VERIFICATIONS STATEMENT

FOR

STATUS OF FEDERAL TAX LIENS

STATUS OF DEBARMENT

USE OF E-VERIFY FOR EMPLOYMENT HIRING

-Must be signed

-Must be submitted with bid

**VERIFICATION STATEMENT
 FOR
 STATUS OF FEDERAL TAX LIENS
 USE OF E-VERIFY FOR EMPLOYMENT HIRING
 STATUS OF DEBARMENT
 UTRACS REGISTRATION/STATUS**

This form represents certifying compliance for items listed below:

- a) This company has no outstanding unresolved federal tax liens, and,
- b) This company uses E-Verify for employment verifications, and
- c) This company has not been suspended or debarred from working on a federal funded contract, does not have a proposed debarment pending, has not been indicted, convicted, or had a civil judgement rendered against the firm by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years as specific by Code of Federal Regulations 49 CFR.
- d) This company has a current UTracs Registration/Profile.
 Website: <https://utracs.azdot.gov>

**It is recommended that all companies working on a federal funded contract be registered on the SAM website. (www.sam.gov)

If unable to certify to the statements above, company is ineligible to enter into an agreement for federal funded contracts with the City of Chandler.

Company Name:			
Company UTracs No:		Renewal/Expiration Date:	
Name of Person Signing:			
Title of Person Signing:			
Signature:			
Date			

7.0

FHWA 1273

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay*. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. **Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

8.0

BUY AMERICA

BUILD AMERICA / BUY AMERICA

MATERIAL CERTIFICATIONS

REQUIREMENTS

**BUY AMERICA / BUILD AMERICA BUY AMERICA / MATERIAL CERTIFICATION
REQUIREMENTS**
For City of Chandler Federal Funded Projects Per FHWA

The City of Chandler will follow Buy America requirements and the Build America Buy America requirements.

A. REGULATIONS

1. FHWA - BUY AMERICA AND THE NEW BUILD AMERICA, BUY AMERICA REGULATION EFFECTIVE NOVEMBER 1, 2022.

https://www.transportation.gov/sites/dot.gov/files/docs/buy_america_provisions_side_by_side.pdf
Federal Highway Administration (FHWA) - 23 U.S.C. § 313 – Buy America; 23 C.F.R. § 635.410

The Secretary of Transportation shall not obligate any funds unless steel, iron, and manufactured products used in such project are produced in the United States.

2. MAG SPECIFICATION SECTION 106.2.1
3. ADOT SPECIFICATION 106, 106.05 AND 106.15

B. PROCEDURE FOR MATERIAL CERTIFICATION REQUIREMENTS – CITY OF CHANDLER

1. All material for a federal funded project must have a material certification.
2. All material delivered to jobsite must be accompanied by a material certification.
3. Material Certifications must be submitted to the City of Chandler representative for review and approval and is not deemed accepted until City of Chandler representative approval.
4. Buy America Material – All Iron and Steel products. (See Item A above)
5. Buy America Material Installation: All Buy America Iron and Steel Products **MUST NOT be installed without Material Certification received and approval from City of Chandler.**
6. All non-Buy America Material Installation: All non-Buy America material, if installed without material certification receipt and approval is at the Prime Contractor's risk and WILL NOT BE PAID until approval of material certification for that material.

C. MATERIAL CERTIFICATIONS – Every Material Certification must have the following– Items 1-11

1. Project Name
2. City Project Number
3. Federal Project Number
4. ADOT Number (previously known as Tracs Number) (if FHWA funded project)
5. Supplier Information: Name, Address, Telephone Number
6. Description of the material supplied
7. Quantity of material represented by the certificate
8. Means of material identification, such as label, lot number, or marking
9. A Statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state compliance with the cited specification, such as AASHTO M 320, ASTM C 494; or specific table or subsection of the Arizona Department of Transportation Standard Specifications or Special Provisions. Certificates may cite both, if applicable.
10. Authorization Signature Statement: A statement that the individual signing has the legal authority to bind the manufacturer or the supplier of the material.
11. The name, title, signature, and date of signature of the signing-responsible individual.
12. Statement that that Federal Requirements for Buy America / BABA have been followed.

ADOT SPECIFICATION – BUILD AMERICA BUY AMERICA (106CMATLS, 10-20-22)

SECTION 106 CONTROL OF MATERIALS: of the Standard Specification is modified to add:

106.17 Construction Materials

A construction material, when used on a federal-aid construction project shall comply with the requirements of Build America Buy America (BABA) Act specific in Title IX, Subtitle A, Part 1, Sections 70901 and 70911-70918 of the Infrastructure Investment and Job Act (ILJA).

A 'construction material' that is permanently incorporated on the project shall include an article, material, or supply that is or consists primarily of the following:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall

Items manufactured through a combination of either two or more materials listed above, or at least one of the materials list above and a material not listed shall be considered as a manufactured product, rather than as a construction material.

Build America Buy America provisions specified for manufactured products in Section 70912(6)(B) of the ILJA, do not apply to federal-aid construction projects per FHQWA's existing statutory requirement applicable to manufactured products. A "manufactured product" is considered to be an item that undergoes one or more manufacturing processes before the item can be used on a federal-aid construction project.

Construction materials shall not include cement and cementitious materials; bituminous materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

All construction materials shall be produced in the United States. This means, all manufacturing processes to produce the construction materials shall occur in the United States. All manufacturing processes for construction materials shall mean the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

The contractor shall furnish the Engineer with Certificate of Compliance, conforming to the requirements of Subsection 106.05 of the ADOT specifications, which shall state that the construction materials incorporated in the project meet the requirements specified herein.

Certificates of Compliance shall also certify that all manufacturing processes to produce construction materials occurred in the United States.

Convict-produced materials are prohibited in accordance with the requirements of 23 CFR 635.417.

Bipartisan Infrastructure Law – Build America, Buy America Act

Questions and Answers

Updated 2/1/2023

Except for any statutes and regulations cited, the contents of this document do not have the force and effect of law and are not meant to bind States or the public in any way. This document is intended only to provide clarity regarding existing requirements under the law or agency policies.

1. What does the Build America, Buy America Act (BABA or the Act) require?

The BABA, part of the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act, Pub. L. 117-58 (Nov. 15, 2021), establishes several procedural and substantive requirements with respect to Buy America.

The procedural requirements under BABA, generally focused on Buy America implementation, include requirements for agencies to review existing Buy America preference requirements, submit reports to the Office of Management and Budget (OMB) and to Congress, review waivers of general applicability, and coordinate with the Made in America Office (MIAO) within OMB in the processing of waivers. See BABA Sections 70913(a) and (b); 70914(d); and 70923(b).

The substantive requirements under BABA include a Buy America preference that all Federal agencies must apply to any Federal financial assistance program for infrastructure that is not already subject to existing Buy America requirements for the relevant categories. See BABA Sections 70914(a) and 70917(a).

2. Do FHWA's existing requirements for steel/iron items and manufactured products continue to apply?

Yes. BABA Section 70917(a) provides that the Buy America requirements under Section 70914 apply only to the extent that Federal agencies do not already apply a Buy America preference as described in Section 70914 to steel, iron, manufactured products, and construction materials. This provision clarifies that Section 70914 of the Act does not supplant FHWA's existing Buy America policies and provisions that meet or exceed the standards required by the Act, such as its requirements for iron and steel under 23 U.S.C. 313. BABA Section 70914(d) also provides a process for reviewing existing waivers of general applicability, such as FHWA's general waiver for manufactured products.

3. Does BABA require the application of Buy America to any new categories of products for Federal-aid highway projects?

Yes. BABA Section 70914(a) requires FHWA to extend coverage of Buy America to "construction materials." Since 23 U.S.C. 313 does not specifically apply to construction materials, the BABA requirements for construction materials apply to Federal-aid highway projects.

Contact

- **Edwin Okonkwo**
[Office of Preconstruction,
Construction and Pavements](#)
202-366-1558
[E-mail Edwin](#)

4. What guidance is available concerning the application of Buy America to construction materials?

On April 18, 2022, OMB issued Memorandum M-22-11 titled "Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure." The Memorandum provides initial guidance on the implementation of BABA, including preliminary guidance addressing the requirement at BABA Section 70915(b) for OMB to define the term "all manufacturing processes" for construction materials. This Memorandum can be found at: <https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf>.

5. When did the BABA requirement for construction materials become effective on Federal-aid highway projects?

BABA Section 70914(a) provided that the new domestic preference requirements (including the requirement for construction materials) would become effective on May 14, 2022, which is 180 days after the date of enactment of the Act. However, DOT also issued a temporary transitional waiver of the BABA construction materials requirement to allow a reasonable adjustment period for recipients of DOT financial assistance — including States, local communities, Tribal nations, and industrial vendors — to develop and transition to new compliance and certification processes for construction materials. See <https://www.transportation.gov/regulations/temporary-waiver-buy-america-requirements-construction-materials>. The Temporary Construction Materials Waiver is applicable to awards that were obligated on or after May 14, 2022, and before November 10, 2022.

6. What is a construction material?

According to preliminary guidance in OMB Memorandum M-22-11, "construction materials" includes an article, material, or supply — other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives — that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

7. What are the Buy America standards that apply to the manufacturing process for construction materials?

According to OMB Memorandum M-22-11, pending issuance of final standards, agencies should consider "all manufacturing processes" for construction materials to include at least the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

OMB Memorandum M-22-11 is preliminary guidance. OMB has sought additional stakeholder input and will be issuing further guidance identifying which products should be considered construction materials and the manufacturing processes that should be considered as part of "all manufacturing processes" for those products. FHWA plans to issue updated guidance once OMB has finalized its guidance.

9.0

EEO

- EEO Clause / Statement (1 page) - Must be submitted with bid
- EEO Executive Order 11246
(Standard Federal EEO Construction Contract Specifications)
- EEO Notice of Requirement for Affirmative Action to Ensure EEO
- EEO Equal Employment Opportunity Compliance Reports
- EEO Executive Order 2009-09

EEO CLAUSE / STATEMENT
and
CONTRACTOR EEO OFFICER

PRIME CONTRACTOR: _____

PRIME CONTRACTOR EEO OFFICER: _____

PRIME CONTRACTOR SIGNATURE: _____

CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS
OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE
FILING OF REQUIRED REPORTS

APRIL, 1969

The Prime Contractor hereby certifies that he has participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that he has filed with the Joint Reporting committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: the above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7b (1),) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Information concerning Standard Form 100 (EEO01) is available from:

Joint Reporting Committee
P.O. Box 19100
Washington, D.C. 20036-9100

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

****Note: This document to be added to the Jobsite Posters**

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
EXECUTIVE ORDER 11246, July 1, 1978**

(Revised November 3, 1980)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted:

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority:

c. "Employer Identification Number" means the Federal Social Security Number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership or participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown plan. Each Contractor or Subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages, of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each

construction trade in which it has employees in the covered area

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications. Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such site or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on the job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations: by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and

female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative actions obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm

debarred from Government Contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as an imitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(EXECUTIVE ORDER 11246)

JULY 1, 1979 (Revised November 3, 1980)

(Revised April 15, 1981)

1. The bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered areas, are as follows:

	<u>Minority</u>	<u>Female</u>
Tucson & Balance of Pima County	24.1	6.9
Cochise, Graham, Greenlee & Santa Cruz Counties	27.0	6.9
Phoenix and Balance of Maricopa County	15.8	6.9
Apache, Coconino, Gila, Mohave, Navajo, Pinal, Yavapai, and Yuma Counties	19.6	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in all areas where the contractor has Federal or federally assisted work.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

EQUAL EMPLOYMENT OPPORTUNITY
COMPLIANCE REPORTS

(Project, Training and Annual)

Federal-Aid Projects

February 1, 1977; Revised July 1, 1978; Revised November 3, 1980
Revised April 15, 1981; Revised September 7, 1983
Revised October 15, 1998; Revised August, 1, 2005;
Revised March 1, 2015, Revised August 24, 2016

ANNUAL REPORT:

For each contract in the amount of \$10,000 or more, and for each subcontract, regardless of tier not including material suppliers, in the amount of \$10,000 or more, the contractor and each subcontractor regardless of tier shall submit an annual Equal Employment Opportunity (EEO) Report containing all the information required on Form FHWA-1391.

The staffing figures to be reported should represent the project workforce on board in all or any part of the last payroll period preceding the end of July.

The report shall be submitted no later than August 15 to the City of Chandler federal compliance officer.

Executive Order 2009-09

**PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS
NONDISCRIMINATION IN EMPLOYMENT BY GOVERNMENT CONTRACTORS AND
SUBCONTRACTORS**

Superseding Executive Order 99-4 and Amending Executive Order 75-5

WHEREAS, Executive Order 99-4 was effectuated to assure that persons or entities contracting with the State of Arizona or its political subdivisions comply with the provisions of Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e, et. seq.) and with Arizona's Civil Rights Act (Title 41, Chapter 9, Article 4);

WHEREAS, Executive Order 99-4 correctly states that various religious organizations are exempted from Arizona's Civil Rights Act;

WHEREAS, Executive Order 99-4 does not expressly state the federal and state exemptions for Indian tribes under both the federal and State Civil Rights Acts;

WHEREAS, 42 U.S.C. § 200e(b)(1) exempts tribes from the definition of employer;

WHEREAS, A.R.S. § 41-1461 4 (b)(i) also exempts Indian tribes from the definition of employers to whom the Arizona Civil Rights Act applies;

WHEREAS, Indian tribes across the State have recently begun to experience difficulty contracting with the State, often for money or services to which they are lawfully entitled, as a result of their exclusion from specified exemptions within Executive Order 99-4;

WHEREAS, the Attorney General's Office has in some cases interpreted the existing provisions as requiring tribes to waive rights guaranteed by both federal and State law;

WHEREAS, a modification is necessary to expressly provide that the exemptions found in federal and State law continue in full force and effect;

NOW, THEREFORE, I, Janice K. Brewer, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of this State, hereby order and direct as follows:

1. Executive Order 75-5 is hereby amended as follows:

PART I - Non-discrimination in employment by government contractors and subcontractors.

Unless otherwise exempted by federal or state civil rights laws, all government contracting agencies shall include in every government contract hereinafter entered into the following provisions:

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

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, age, color, religion, sex, or national origin. The contractor will take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, age, color, religion, sex or national origin. Such action shall include, but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or

termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

A continued Executive Order No. 75-5 is hereby amended to permit government contractors and subcontractors that are exempted from compliance under Title 41, chapter 9, article 4, Arizona Revised Statutes or 42 U.S.C. § 200e(b)(1), to provide employment preferences consistently with federal and state statutes;

Therefore, Executive Order 75-5 does not apply to Indian tribes. It likewise does not apply to religious organizations with respect to the employment of individuals of a particular religion to perform work connected with the activities of the employer. It also provides that religious organizations may provide employment preferences based upon religion when dealing with a bona fide occupational qualification reasonably necessary to the operation of the religious organization. This is consistent with the provisions of the Civil Rights Act of 1964 (42 U.S.C. 2000e, et seq.). In addition, in the Personal Responsibility and Work Opportunity Reconciliation Act, P.L. 104-193, Congress provided that religious organizations are eligible for the receipt of federal funds on the same basis as other private organizations.

Executive Order No. 75-5 prohibits all other government contractors and subcontractors from discriminating against any employee or applicant for employment because of race, age, color, religion, sex or national origin. Executive Order No. 75-5 further requires all government contractors and subcontractors to take action to insure that applicants are employed and employees are treated during employment without regard to their race, age, color, religion, sex or national origin.

- B. The contractor will in all solicitations or advertisement for employees placed by or on behalf of the contractor state that all qualified applicants will receive consideration for employment without regard of race, age, color, religion, sex or national origin.
- C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under the Executive Order and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The contractor will furnish all information and reports required by the contracting agency and will permit access to his books, records, and accounts by the contracting agency and the Civil Rights Division for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- E. In the event of the contractor's noncompliance with the nondiscrimination clauses of the contract or with any such rules, regulations or orders of the Arizona Civil Rights Division said noncompliance will be considered a material breach of the contract and this contract may be cancelled, terminated or suspended, in whole or in part, and the contractor may be declared ineligible for future government contracts until said contractor has been found to be in compliance with the provisions of this order and the rules and regulations of the Arizona Civil Rights Division, and such sanctions may be

imposed and remedies invoked as provided in Part II of this order, and the rules and regulations of the Arizona Civil Rights Division.

- F. The contractor will include the provisions of paragraphs A through E in every subcontractor purchase order so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to the subcontract or purchase orders the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance, provided, however, that in the event the contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the State of Arizona to enter into such litigation to protect the interest of the State of Arizona.
- G. Each contractor having a contract containing the provisions prescribed in this section shall file and shall cause each of his subcontractors to file compliance reports with the contracting agency or the Civil Rights Division, as may be directed. Compliance reports shall be filed within such times and shall contain such information as the practices, policies, programs and employment policies, programs and employment statistics of the contractor and each subcontract and shall be in form as the Arizona Civil Rights Division may prescribe.
- H. Bidders or prospective contractors of subcontractors shall be required to state whether they have participated in any previous contract subject to the provisions of this order or any preceding similar Executive Order and in such event to submit on behalf of themselves and the proposed subcontractors compliance reports prior to, or as an initial part of negotiation of a contract.
- I. Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers of providing or supervising apprenticeship or training for such workers, the compliance report shall include such information from such labor unions or agency practices and policies affecting compliance as the contracting agency or Civil Rights Division may prescribe: provided that, to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify the contracting agency as part of its compliance report and shall set forth what efforts he has made to obtain such information.
- J. The contracting agency or the Civil Rights Division shall require that the bidder or prospective contractor or subcontractor shall submit as part of his compliance report a statement in writing signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training with which the bidder or prospective contractor deals with supporting information to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment, employment, and the terms and conditions

of employment under the proposed contract shall be in accordance with the purpose and provisions of this order. In the event that the union or the agency shall refuse to execute such a statement, the compliance shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Civil Rights Division may require.

PART II - Enforcement

- A. Each contracting agency shall be primarily responsible for obtaining compliance with this Executive Order with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the rules of the Civil Rights Division in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this order and the rules and regulations and orders of the Civil Rights Division issued pursuant to this order. They are directed to cooperate with the Civil Rights Division and to furnish the Division such information and assistance as it may require in the performance of the Division's functions under this order. They are further directed to appoint or designate from among the agency personnel compliance officers. It shall be the duty of such officers to first seek compliance with the objective of this order by conference, conciliation, mediation or persuasion.
- B. The Civil Rights Division may investigate the employment practices of any government contractor if subcontractor of initiate such investigation by the appropriate contracting agency or determine whether or not the contractual provisions specified in this order have been violated. Such investigations shall be conducted in accordance with the procedures established by the Civil Rights Division and the investigating agencies shall report to the Civil Rights Division any action taken or recommended. The Civil Rights Division may receive and investigate or cause to be investigated complaints by employees or prospective employees of a government contractor or subcontractor which alleges discrimination contrary to the contractual provisions specified in Part I of this order. If the investigation is conducted for the Civil Rights Division by a contracting agency, that agency shall report to the Civil Rights Division what action has been taken or it's recommendation with regard to such complaint.
- C. The Civil Rights Division shall use its best efforts directly and through contracting agencies, other interested state and local agencies, contractors and all other available instrumentalities to cause any labor union engaged in work under government contracts or any agency referring workers or providing or supervising apprenticeship or training for it in the course of such work or cooperate in the implementation of the purposes of this order.
- D. The Civil Rights Division or any agency, officer or employee in the executive branch of the government designated by rule, regulation or order of the Civil Rights Division may hold such hearings, public or private, as the Division may deem advisable for compliance, enforcement of educational purposes. The Civil Rights Division may hold or cause to be held hearings in accordance with rules and regulations issued by the Civil Rights Division prior to imposing, ordering or recommending the imposition of penalties and sanctions under this order.
- E. No order for debarment of any contractor from further government contracts under this order shall be made without affording the contractor an opportunity for a hearing.

- F. **Sanctions and Penalties.** In accordance with such rules, regulations or orders as the Civil Rights Division may issue or adopt, the Civil Rights Division or the appropriate contracting agency may publish or cause to be published the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this order and with the rules, regulations and orders of the Civil Rights Division.
1. Contracts may be cancelled, in whole or in part, terminated, or suspended absolutely, or continuation of contracts may be conditioned upon a program for future compliance approved by the contracting agency or the Civil Rights Division: provided that any contracting agency shall refrain from entering into further contracts, extensions or other modifications of existing contracts with any noncomplying contractor until such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this order.
 2. Under rules and regulations prescribed by the Civil Rights Division, each contracting agency shall make reasonable efforts within a reasonable time limitation to secure compliance with the contract provisions of this order by methods of conference, conciliation, mediation and persuasion before proceedings shall be instituted under this order or before a contract shall be cancelled or terminated in whole or in part under this order for failure of a contractor or subcontractor to comply with the contract provisions of this order.
- G. This Executive Order shall become effective immediately of its issuance.



IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.

Janice K. Brewer
GOVERNOR

DONE at the Capital in Phoenix, Arizona this 20th day of October
In the Year Two Thousand and Nine and of the Independence of
the United States of America the Two Hundred and Thirty-Third.

ATTEST:

Karen Blumenthal

SECRETARY OF STATE

10.0

FEDERAL IMMIGRATION AND NATIONALITY ACT

Federal Immigration and Nationality Act
(Reference to Arizona Executive Order 2005-30)

The contractor, including all subcontractors, shall comply with all federal, state and local immigration laws and regulations, as set forth in Arizona Executive Order 2005-30, relating to the immigration status of their employees who perform services on the contract during the duration of the contract. The Agency (City of Chandler) shall retain the right to perform random audits of contractor and subcontractor records or to inspect papers of any employee thereof to ensure compliance.

By submission of a bid, the contractor warrants that the contractor and all proposed subcontractors are and shall remain in compliance with all federal, state, and local immigration laws and regulations relating to the immigration status of their employees who perform services on the contract. The Agency may, at its sole discretion, require evidence of compliance from the contractor or subcontractor. Should the Agency request evidence of compliance, the contractor or subcontractor shall have ten (10) working days from receipt of the request to supply adequate information. The Department and Agency (City of Chandler) will accept, as evidence of compliance, a showing by the contractor or subcontractor, that it has followed the employment verification provisions of the Federal Immigration and Nationality Act as set forth in Sections 274A and 274B of that Act, including implementation of regulations and agreements between the Department of Homeland Security and the Social Security Administration's verification service. The contractor shall include the requirements of this provision in all subcontracts for this project.

Failure to comply with the immigration laws or to submit proof of compliance constitutes a material breach of contract. The Agency will recue the contractor's compensation by \$10,000 for the initial instance of non-compliance by the contractor or a subcontractor. Should the same contractor or subcontractor commit subsequent violations within a two (2) year time period from the initial violation, the contractor's compensation will be reduced by \$50,000 for each violation. The third instance by the same contractor or subcontractor within a two (2) year period may result, in addition to the \$50,000 reduction in compensation, in removal of the offending contractor or subcontractor, suspension of work in whole or in part or, in the case of a third violation by the contractor, termination of the contract for default in addition, the Department may debar a contractor or subcontractor who has committed three (3) violations within a two (2) year period for up to one (1) year. For purposes of this paragraph, a violation by a subcontractor does not count as a violation by the contractor.

Any delay resulting from a sanction under this subsection is a non-excusable delay. The contractor is not entitled to any compensation or extension of time for any delays or additional costs resulting from a sanction under this subsection.

11.0

RECORDS RETENTION

CONTRACTOR/SUBCONTRACTOR RECORDS

RECORDS RETENTION
Contractor and Subcontractor Project Records
(Reference to A.R.S.35-214)

The contractor, subcontractors and all suppliers shall keep and maintain all books, papers, records, files, accounts, reports, bid documents with backup data, including electronic data, and all other material relating to the contract and project for five (5) years following completion and acceptance of the work.

All of the above material shall be made available for auditing, inspection, and copying and shall be produced upon request to the Agency.

The City of Chandler – Capital Projects
215 E Buffalo Street, Mail Stop 407
Chandler, Arizona 85225.

The contractor shall insert the above requirement in each subcontract purchase order and lease agreement and shall also include in all subcontracts, a clause requiring subcontractors to include the above requirement in any lower-tier subcontract, purchase order, or lease agreement.

12.0

JOBSITE POSTERS REQUIREMENTS

(Reference Guide Only)

CONSTRUCTION BID / CONTRACT FEDERAL DOCUMENTS SECTION
 JOBSITE POSTER REQUIREMENTS REFERENCE

Jobsite Poster Requirements Section – Requirements are subject to changes. Prime Contractor will be provided with an updated checklist and updated screen shots or copies from websites as needed or requested. It is required to have the most current poster revisions.

CONSTRUCTION JOB SITE POSTERS BOARD REQUIREMENTS –FHWA

Date	Project Name
Checked by	Project Numbers

Must have a Project Jobsite Poster Board
Location – must be located away from Management View
Must be updated if weather damaged

Item	English-1	Spanish-2	Poster Title
1			Employee Rights Under Davis Bacon for Laborers & Mechanics Act – (WH1321) 10-2017
2A			Minimum Wage Jobsite Poster – Arizona 01-2024 –(*\$14.35_
2B			Minimum Wage Jobsite Poster – Federal – Federal Contractors Minimum Wage 01-2024
3			Employee Rights Under the Employee Polygraph Protection Act – (WH1462) WH1462 02-2022
4			Employee Rights Under the Family Medical Leave Act – (WHD1420) 04-2023
5			Employee Rights Under the National Labor Relations Act (Exec Order 13496) ***MUST BE 11X17 or 2-page version as 8.5x11*** 2022-05-02
6			EEO Know Your Rights Wk Place Discrimination 2023-08-27
7			EEO – Contractor EEO Policy Statement (comes with bid / contract) ***COC combines 8a and 8b into 1 By putting a statement at the bottom of the EEO Policy Statement to put EEO Officer name. 2024-01-09
8			Pay Transparency Nondiscrimination Provision (Exec Order 11248) 12-2018
9			USERRA - Your Rights Under USERRA – Uniformed Services Employment 05-2022
10			OSHA Job Safety - Safe Work-Place – 20195 ***OSHA states must be at least 8.5x14 (can be 11x17)
11			FHWA 1022 Fraud - 05-2015
12			Arizona Workers' Compensation Law (English/Spanish) NO Date
13			Unemployment Insurance AZ 08-19 (POU-003)
14			Fair Wages Earned Paid Sick Time 07-01-2017
15			Title VI – (English/Spanish/Chinese)
16			FHWA 1273 – Contract Provisions for Federal Aid Construction Contracts 10-23-2023
17			Davis Bacon Wage Decision
18			DURING CONSTRUCTION: Added Classifications List (if applicable)

- No 1** Poster copy to have the following information in the blank boxes at the bottom.
 CITY OF CHANDLER CIUDAD DE CHANDLER
 TEL: 480-782-3331 Tel: 480-782-3331
 215 E. Buffalo St, PO Box 4008, MS407 215 E Buffalo St, PO Box 4008, MS407
 Chandler, AZ 85244 Chandler, AZ 85244
- No 5** Employee Rights Under the National Labor Relations Act
 Size requirement options are that you must post as 11x17 or you may use two-page format of 8.5x11".
- No 07** This EEO Clause/Statement was in bid/submitted with bid. Contractor and/or City can provide.
- No 12** FHWA 1022 Fraud – Information to add:
 Under "State Highway Department" Under "Federal Highway Administration":
 Arizona Department of Transportation 4000 N Central Ave, #1500
 Deputy State Engineer Phoenix, AZ 85012
 208 S 17th Ave, Phoenix, AZ 85007
- No 15** This is a "City of Chandler specific" federal required poster. City of Chandler will provide this poster.
- No 17** Davis Bacon Wage Decision is project specific. ONLY post the contract specific wage decision
- No 18** Davis Bacon Wage Decision has a last page that is blank – use this page to attach when Wage Classifications Have been added/approved.

Courtesy - Web Site Links for Posters

- <https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm> (posters at this site are: 1,3,4,6,8, 9,10,11)
- <https://www.fhwa.dot.gov/construction/cqit/> (16)
- <https://www.sam.gov> (17)
- <https://www.dol.gov/agencies/olms/poster/labor-rights-federal-contractors> (5)
- <https://www.dol.gov/agencies/whd/posters> (4,2C, 1)
- <https://www.dol.gov/sites/dolgov/files/VETS/files/USERRA-Poster.pdf> (9)
- <https://www.azica.gov/claims-workers-compensation-compliance-poster> (12, 14)
- <https://des.az.gov/sites/default/files/legacy/dl/POU-003.pdf> (13)
- <https://www.laborposters.org/arizona/16-arizona-minimum-wage-spanish-poster.htm> (2A,2)
- <https://www.dol.gov/agencies/whd/government-contracts/eo14026> (2c)

EMPLOYEE RIGHTS UNDER THE DAVIS-BACON ACT

FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

- PREVAILING WAGES** You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.
- OVERTIME** You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.
- ENFORCEMENT** Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.
- APPRENTICES** Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.
- PROPER PAY** If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

CITY OF CHANDLER
PO BOX 4008, Mail Stop 407
Chandler, AZ 85244
215 E Buffalo Street
Chandler, AZ 85225
480-782-3331

or contact the U.S. Department of Labor's Wage and Hour Division.

DERECHOS DEL EMPLEADO BAJO LA LEY DAVIS-BACON

PARA OBREROS Y MECÁNICOS EMPLEADOS EN PROYECTOS DE CONSTRUCCIÓN FEDERAL O CON ASISTENCIA FEDERAL

- SALARIOS PREVALECIENTES** No se le puede pagar menos de la tasa de pago indicada en la Decisión de Salarios Davis-Bacon fijada con este Aviso para el trabajo que Ud. desempeña.
- SOBRETIEDO** Se le ha de pagar no menos de tiempo y medio de su tasa básica de pago por todas las horas trabajadas en exceso de 40 en una semana laboral. Existen pocas excepciones.
- CUMPLIMIENTO** Se pueden retener pagos por contratos para asegurarse que los obreros reciban los salarios y el pago de sobretiempos. Las cláusulas contractuales de Davis-Bacon permiten la terminación y exclusión de contratos para efectuar futuros contratos licitados hasta tres años. Si el contratista que falsifique los registros certificados de las nóminas de pago o induce devoluciones de salarios puede ser sujeto a procesamiento civil o criminal, multas y/o encarcelamiento.
- APRENDICES** Las tasas de aprendices sólo se aplican a aprendices correctamente inscritos bajo programas licitados o estatales aprobados.
- PAGO APROPIADO** Si Ud. no recibe el pago apropiado, o precisa de información adicional sobre los salarios aprobados, póngase en contacto con el Contratista Oficial que aparece abajo:

CITY OF CHANDLER PO
BOX 4008, Mail Stop 407
Chandler, AZ 85244

215 E Buffalo Street

480-782-3331

o póngase en contacto con la División de Horas y Salarios del Departamento de Trabajo de los EE.UU.




WHD WAGE AND HOUR DIVISION
UNITED STATES DEPARTMENT OF LABOR

1-800-467-6043
TTY: 1-877-889-5627
www.dol.gov/whd




WHD DIVISION DE HORAS Y SALARIOS
DEPARTAMENTO DE TRABAJO DE LOS EE.UU.

1-800-467-6043
TTY: 1-877-889-5627
www.dol.gov/whd

THE FAIR WAGES AND HEALTHY FAMILIES ACT

Effective January 1, 2024, Arizona's Minimum Wage Is:

\$14.35 per hour

EXEMPTIONS: The Fair Wages and Healthy Families Act (the "Act") does not apply to any person who is employed by a parent or a sibling; any person who is employed performing babysitting services in the employer's home on a casual basis; any person employed by the State of Arizona or the United States government; or any person employed in a small business that grosses less than \$500,000 in annual revenue, if that small business is exempt from having to pay a minimum wage under section 206(a) of title 29 of the United States Code.


TIPS AND GRATUITIES: For any employee who customarily and regularly receives tips or gratuities, an employer may pay tipped employees a maximum of \$3.00 per hour less than the minimum wage if the employer can establish by its records that for each week, when adding tips received to wages paid, the employee received not less than the minimum wage for all hours worked. Certain other conditions must be met.

RETALIATION & DISCRIMINATION PROHIBITED: Employers are prohibited from discriminating against or subjecting any person to retaliation for: (1) asserting any claim or right under the Act; (2) assisting any person in doing so; or (3) informing any person of their rights under the Act.

ENFORCEMENT: Any person or organization may file a complaint with the Industrial Commission's Labor Department alleging that an employer has violated the Act. Certain time limits apply. A civil action may also be filed as provided in the Act. Violations of the Act may result in penalties.

INFORMATION: For additional information regarding the Act, you may refer to the Industrial Commission's website at www.azica.gov or contact the Industrial Commission's Labor Department: 800 W. Washington, Phoenix, Arizona 85007-2022; (602) 542-4515.

THIS POSTER MUST BE CONSPICUOUSLY DISPLAYED IN A PLACE THAT IS ACCESSIBLE TO EMPLOYEES



LEY GENERAL DE SALARIOS JUSTOS Y FAMILIAS SANAS

A partir del 1 de enero del 2024, el salario mínimo en Arizona será:

\$14.35 la hora

EXCEPCIONES: La Ley General de Salarios Justos y Familias Sanas (la "Ley General") no tendrá vigencia para las personas que sean empleadas por padres de familia o hermanos; cualquier persona que trabaje informalmente en el hogar de los patrones proporcionando servicios de cuidado de menores; cualquier persona que sea empleada por el Estado de Arizona o el gobierno de los Estados Unidos; o cualquier persona que sea empleada por una pequeña empresa que genere menos de \$500,000 en ingresos anuales, si dicha pequeña empresa estuviera exenta de pagar un salario mínimo de conformidad con la fracción 206(a) del Título 29 del Código Estatutario de los Estados Unidos.

PROPINAS: Para todos los empleados que acostumbren a recibir propinas, las entidades patronales podrán pagarles a tales empleados hasta un máximo de \$3.00 menos por la hora que el salario mínimo, si tales entidades patronales puedan comprobar con sus constancias que, por cada semana, al sumar las propinas a los sueldos pagados, los empleados recibieron no menos del sueldo mínimo por todas las horas trabajadas. Deberá cumplirse con ciertas otras condiciones.

REPRESALIAS Y DISCRIMINACION PROHIBIDOS: Se les prohíbe a las entidades patronales discriminar contra otras personas o someterlas a represalias por: (1) afirmar sus reclamaciones o derechos de conformidad con la Ley General; (2) ayudar a cualquier otra persona a afirmar esto; o (3) informarle a cualquier otra persona sus derechos de conformidad con la Ley General.

EJECUCIÓN: Cualquier persona u organización podrá presentar una queja ante el Departamento del Trabajo de la Comisión Industrial en la que se alegue que una entidad patronal ha quebrantado la Ley General. Hay que cumplir con ciertos límites de tiempo. También se puede interponer una demanda civil en conformidad con la Ley General. Las trasgresiones de la Ley General pudieran resultar en sanciones.

INFORMACIÓN: Para obtener más información sobre la Ley General, deberá buscar en la página de Internet de la Comisión: www.azica.gov; también podrá comunicarse con el Departamento del Trabajo de la Comisión Industrial: Industrial Commission's Labor Department: 800 W. Washington, Phoenix, Arizona 85007-2022; o llamar al teléfono (602) 542-4515.

ESTE AVISO DEBERÁ PUBLICARSE MUY VISIBLEMENTE EN UN SITIO AL QUE LOS EMPLEADOS TENGAN ACCESO

WORKER RIGHTS UNDER EXECUTIVE ORDER 14026

FEDERAL MINIMUM WAGE FOR CONTRACTORS

\$17.20 PER HOUR

EFFECTIVE JANUARY 1, 2024 – DECEMBER 31, 2024

The law requires certain federal contractors to display this poster where employees can easily see it.

MINIMUM WAGE Executive Order (EO) 14026 requires that federal contractors pay workers performing work on or in connection with covered contracts at least (1) \$15.00 per hour beginning January 30, 2022, and (2) beginning January 1, 2023, and every year thereafter, an inflation-adjusted amount determined by the Secretary of Labor in accordance with EO 14026 and appropriate regulations. The EO 14026 minimum wage in effect from January 1, 2024 through December 31, 2024 is \$17.20 per hour.

TIP CREDIT Starting on January 1, 2024, contractors may not credit employee tips toward the EO 14026 minimum wage. Similar to other workers subject to EO 14026, tipped employees must be paid a cash wage of at least \$17.20 per hour, effective January 1, 2024, through December 31, 2024.

EXCLUSIONS

- The EO 14026 minimum wage may not apply to some workers who provide support "in connection with" covered contracts for less than 20 percent of their hours worked in a week.
- The EO 14026 minimum wage may not apply to certain other occupations and workers.

ENFORCEMENT The U.S. Department of Labor's Wage and Hour Division (WHD) is responsible for enforcing this law. WHD can answer questions about your workplace rights and protections, investigate employers and recover back wages. All WHD services are free and confidential. Employers cannot retaliate or discriminate against someone who files a complaint or participates in an investigation. WHD will accept a complaint in any language. You can find your nearest WHD office online at dol.gov/agencies/whd/contact/local-offices or by calling toll-free 866-4US-WAGE (866-487-9243). We do not ask workers about their immigration status. We can help.

ADDITIONAL INFORMATION

- EO 14026 only applies to certain federal construction and service contracts that were renewed, extended, or entered into on or after January 30, 2022. Contracts that were awarded between January 1, 2015 and January 29, 2022, that were not renewed or extended on or after January 30, 2022, and some procurement contracts entered into on or between January 30, 2022 and March 30, 2022, may be subject to EO 13658, which provides a lower minimum wage requirement than EO 14026. More information about the differences between EO 14026 and EO 13658 is available at dol.gov/agencies/whd/government-contracts/eo14026side-by-side
- Workers with disabilities whose wages are governed by special certificates issued under section 14(c) of the Fair Labor Standards Act must receive no less than the full minimum wage rate under EO 14026 for time spent performing on or in connection with covered contracts.
- Some state or local laws may provide greater worker protections; employers must follow the law that requires the highest rate of pay.
- More information about the EO is available online at www.dol.gov/agencies/whd/government-contracts/eo14026



DERECHOS DE LOS TRABAJADORES BAJO LA ORDEN EJECUTIVA 14026

SALARIO MÍNIMO FEDERAL PARA CONTRATISTAS

\$17.20 POR HORA

VIGENTE DEL 1 DE ENERO DE 2024-31 DE DICIEMBRE DE 2024

La ley requiere que ciertos contratistas federales muestren este póster donde los empleados lo puedan ver fácilmente.

SALARIO MÍNIMO La Orden Ejecutiva 14026 (EO, por sus siglas en inglés) requiere que los contratistas federales paguen a los trabajadores que realizan trabajos en o en relación con contratos cubiertos por lo menos (1) \$15.00 por hora a partir del 30 de enero de 2022, y (2) a partir del 1 de enero de 2023, y cada año a partir de entonces, una cantidad ajustada a la inflación determinada por el Secretario de Trabajo de acuerdo con la EO y las regulaciones correspondientes. El salario mínimo por hora de la EO vigente desde el 1 de enero de 2024 hasta el 31 de diciembre de 2024 es de \$17.20.

CRÉDITO DE PROPINAS A partir del 1 de enero de 2024, los contratistas no podrán acreditar las propinas de los empleados al salario mínimo establecido por la Orden Ejecutiva (EO), por sus siglas en inglés. Al igual que otros trabajadores sujetos a la EO 14026, los empleados que reciben propinas deben recibir un salario en efectivo de al menos \$17.20 por hora, a partir del 1 de enero de 2024 hasta el 31 de diciembre de 2024.

EXCLUSIONES

- El salario mínimo de la EO puede no aplicarse para algunos trabajadores que brindan apoyo en relación con contratos federales cubiertos por menos del 20 por ciento de sus horas trabajadas en una semana.
- El salario mínimo de la EO puede no aplicarse a ciertas ocupaciones y trabajadores.

CUMPLIMIENTO La División de Horas y Salarios (WHD, por sus siglas en inglés) del Departamento de Trabajo de EE.UU. es responsable de hacer cumplir esta ley. La WHD puede responder a preguntas sobre sus derechos y protecciones en el lugar de trabajo, investigar a los empleadores y recuperar los pagos atrasados. Todos los servicios de la WHD son gratuitos y confidenciales. Los empleadores no pueden tomar represalias ni discriminar a nadie que presente una queja o participe en una investigación. La WHD aceptará una queja en cualquier idioma. Puede encontrar la oficina de la WHD más cercana en dol.gov/agencies/whd/contact/local-offices o llamando al número gratuito 866-487-9243. No les preguntamos a los trabajadores sobre su estatus de inmigración. Podemos ayudarlos.

INFORMACIÓN ADICIONAL

- La EO 14026 solo se aplica a ciertos contratos federales de construcción y servicios que se renovaron, ampliaron o celebrados a partir del 30 de enero de 2022. Los contratos que se adjudicaron entre el 1 de enero de 2015 y el 29 de enero de 2022, que no se renovaron ni ampliaron el o después del 30 de enero de 2022, y algunos contratos de adquisición celebrados entre el 30 de enero de 2022 y el 30 de marzo de 2022, pueden estar sujetos a la EO 13658, que establece un requisito de salario mínimo más bajo que la EO 14026. Obtenga más información sobre las diferencias entre la EO 14026 y la EO 13658 en dol.gov/agencies/whd/government-contracts/eo14026side-by-side
- Los trabajadores con discapacidades cuyos pagos se rigen por certificados especiales emitidos bajo la sección 14(c) de la Ley de Normas Justas de Trabajo también deben recibir por lo menos la cantidad completa del salario mínimo según la EO.
- Algunas leyes estatales o locales pueden brindar mayor protección a los trabajadores; los empleadores deben cumplir con la ley que requiere la tarifa de pago más alta.
- Obtenga más información sobre la EO en dol.gov/agencies/whd/government-contracts/eo14026



EMPLOYEE RIGHTS EMPLOYEE POLYGRAPH PROTECTION ACT

The Employee Polygraph Protection Act prohibits most private employers from using lie detector tests either for pre-employment screening or during the course of employment.

PROHIBITIONS Employers are generally prohibited from requiring or requesting any employee or job applicant to take a lie detector test, and from discharging, disciplining, or discriminating against an employee or prospective employee for refusing to take a test or for exercising other rights under the Act.

EXEMPTIONS Federal, State and local governments are not affected by the law. Also, the law does not apply to tests given by the Federal Government to certain private individuals engaged in national security-related activities.

The Act permits polygraph (a kind of lie detector) tests to be administered in the private sector, subject to restrictions, to certain prospective employees of security service firms (armored car, alarm, and guard), and of pharmaceutical manufacturers, distributors and dispensers.

The Act also permits polygraph testing, subject to restrictions, of certain employees of private firms who are reasonably suspected of involvement in a workplace incident (theft, embezzlement, etc.) that resulted in economic loss to the employer.

The law does not preempt any provision of any State or local law or any collective bargaining agreement which is more restrictive with respect to lie detector tests.

EXAMINEE RIGHTS Where polygraph tests are permitted, they are subject to numerous strict standards concerning the conduct and length of the test. Examinees have a number of specific rights, including the right to a written notice before testing, the right to refuse or discontinue a test, and the right not to have test results disclosed to unauthorized persons.

ENFORCEMENT The Secretary of Labor may bring court actions to restrain violations and assess civil penalties against violators. Employees or job applicants may also bring their own court actions.

THE LAW REQUIRES EMPLOYERS TO DISPLAY THIS POSTER WHERE EMPLOYEES AND JOB APPLICANTS CAN READILY SEE IT.



DERECHOS DEL EMPLEADO LEY PARA LA PROTECCIÓN DEL EMPLEADO CONTRA LA PRUEBA DEL POLÍGRAFO

La Ley Para La Protección del Empleado contra la Prueba de Polígrafo le prohíbe a la mayoría de los empleadores del sector privado que utilice pruebas con detectores de mentiras durante el periodo de pre-empleo o durante el servicio de empleo.

PROHIBICIONES Generalmente se le prohíbe al empleador que le exija o requiera a un empleado o a un solicitante a un trabajo que se someta a una prueba con detectores de mentiras, y que despidas, disciplines, o discrimine de ninguna forma contra un empleado o contra un aspirante a un trabajo por haberse negado a someterse a la prueba o por haberse acogido a otros derechos establecidos por la Ley.

EXENCIONES Esta Ley no afecta a los empleados de los gobiernos federal, estatales y locales. Tampoco se aplica a las pruebas que el Gobierno Federal les administra a ciertos individuos del sector privado que trabajan en actividades relacionadas con la seguridad nacional.

La Ley permite la administración de pruebas de polígrafo (un tipo de detector de mentiras) en el sector privado, sujeta a ciertas restricciones, a ciertos aspirantes para empleos en compañías de seguridad (vehículos blindados, sistemas de alarma y guardias). También se les permite el uso de estas a compañías que fabrican, distribuyen y dispensan productos farmacéuticos.

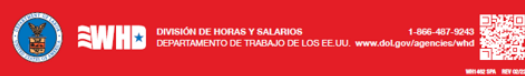
La Ley también permite la administración de estas pruebas de polígrafo, sujeta a ciertas restricciones, a empleados de empresas privadas que estén bajo sospecha razonable de estar involucrados en un incidente en el sitio de empleo (tal como un robo, desfalco, etc.) que le haya ocasionado daños económicos al empleador.

La Ley no sustituye ninguna provisión de cualquier otra ley estatal o local ni tampoco a tratos colectivos que sean más rigurosos con respecto a las pruebas de polígrafo.

DERECHOS DE LOS EXAMINADOS En casos en que se permitan las pruebas de polígrafo, éstas deben ser administradas bajo una cantidad de normas estrictas en cuanto a su administración y duración. Los examinados tienen un número de derechos específicos, incluyendo el derecho de advertencia por escrito antes de someterse a la prueba, el derecho a negarse a someterse a la prueba o a discontinuarla, al igual que el derecho a negarse a que los resultados de la prueba estén al alcance de personas no autorizadas.

CUMPLIMIENTO El/La Secretario(a) de Trabajo puede entablar pleitos para impedir violaciones y puede imponer penas pecuniarias civiles contra los violadores. Los empleados o solicitantes a empleo también tienen derecho a entablar sus propios pleitos en los tribunales.

LA LEY EXIGE QUE LOS EMPLEADORES EXHIBAN ESTE AVISO DONDE LOS EMPLEADOS Y LOS SOLICITANTES DE EMPLEO LO PUEDAN VER FÁCILMENTE.



Your Employee Rights Under the Family and Medical Leave Act

What is FMLA leave?

The Family and Medical Leave Act (FMLA) is a Federal Law that provides eligible employees with **up to 12 weeks of FMLA leave** for certain family and medical reasons. The U.S. Department of Labor Wage and Hour Division (WHD) enforces FMLA.

Eligible employees can take up to 12 weeks of FMLA leave in a 12-month period for:

- The birth, adoption or foster placement of a child for you, your spouse, partner, or child.
- Your serious medical condition or health condition that makes you unable to work.
- To care for a spouse, child or parent with a serious medical condition.
- For a non-emergency medical condition of the family member of your spouse, partner, or child.

You **don't** have to have a medical diagnosis, but you must provide enough information to your employer so they can determine whether you are eligible for FMLA protection. You **must** also inform your employer of your FMLA leave no later than 30 days of absence for the same reason when returning to work.

You **must** use your **own** accrued vacation or other paid time off to cover FMLA leave and then request certification of a qualifying medical condition.

The FMLA does not affect any federal or state law regarding discrimination or retaliation or other labor or collective bargaining agreements that provide greater family or medical leave rights.

State or employer policies that conflict with FMLA leave are not enforceable. Your employer must follow the FMLA. If you have a question about FMLA, contact the U.S. Office of Personnel Management or WHD.

Am I eligible to take FMLA leave?

You have the right to use FMLA leave if you are an **eligible** employee. You must be an **eligible** employee who is an **employee** of a federal, state, or local government, or a private employer with at least 50 employees. You must be an **eligible** employee who is an **employee** of a federal, state, or local government, or a private employer with at least 50 employees.

You have the right to use FMLA leave if you are an **eligible** employee. You must be an **eligible** employee who is an **employee** of a federal, state, or local government, or a private employer with at least 50 employees.

What does my employer need to do?

If you are eligible for FMLA leave, your employer **must**:

- Allow you to take job-protected leave off work for a qualifying reason.
- Continue your group health plan coverage while you are on leave on the same basis as if you had not taken leave.
- Pay you for the time you are on leave if you are on paid leave. If you are on unpaid leave, you must be paid for the time you are on leave if you are on paid leave.
- Restore you to the same job, or an equivalent job with the same pay, benefits and other working conditions, including shift and schedule, after the end of your leave.

Your employer **cannot** interfere with your FMLA rights or threaten or punish you for exercising your right to take FMLA leave. For example, your employer cannot deny you a promotion, demote you, or discipline you for taking FMLA leave or requesting a FMLA certification.

Am I eligible to take FMLA leave?

You are an **eligible** employee if you:

- Work for a private employer that had at least 50 employees during at least 20 weeks of the year.
- Have worked for your employer at least 12 months.
- Have worked full-time or part-time for your employer during the 12 months before you leave.
- Your employer has at least 50 employees within 75 miles of your work location.

Before taking leave, employees have different "years of service" requirements. You work for a **covered** employer if you:

- Worked for a private employer that had at least 50 employees during at least 20 weeks of the year.
- Worked for a state or local government or a private employer that had at least 50 employees during at least 20 weeks of the year.
- Worked for a public agency, such as a school, federal, state or local government agency, that had at least 50 employees during at least 20 weeks of the year.

Where can I find more information?

Call 1-800-877-8349 or visit www.dhs.gov/fmla for more information. You can also find more information on the U.S. Office of Personnel Management website at www.opm.gov. You can also find more information on the U.S. Office of Personnel Management website at www.opm.gov.

How do I request FMLA leave?

Generally, to request FMLA leave you must:

- Follow your employer's notification procedure for requesting leave.
- Give notice at least 30 days before your need for FMLA leave, or if that is not possible, give notice as soon as possible.

SCAN ME

WHD 456 REV 04/23

U.S. DEPARTMENT OF LABOR

Sus derechos de personal según la Ley de Licencia Familiar y Médica

¿Qué es una licencia de FMLA?

La Ley de Licencia Familiar y Médica (FMLA) le permite a los empleados elegibles tomar hasta 12 semanas de licencia de FMLA para ciertas razones familiares y médicas. La FMLA no afecta ninguna ley federal o estatal que prohíba la discriminación, ni tampoco ninguna ley federal o estatal que prohíba la retaliación, ni tampoco ninguna ley federal o estatal que prohíba la discriminación o la retaliación.

El personal elegible puede tomar licencia de FMLA de hasta 12 semanas de trabajo en un período de 12 meses por:

- El nacimiento, la adopción o la colocación de un hijo adoptivo de un niño o niña.
- Un problema grave de salud mental o físico que lo impida trabajar.
- El cuidado de un hijo, un hijo adoptivo o un hijo con una enfermedad mental o física grave.
- Cuando someone que sufre una enfermedad que lo impida trabajar o cuando, por alguna razón, no puede ir al trabajo.

El personal que sea elegible para tomar licencia de FMLA también puede usar licencia de FMLA para cuidar a un miembro de su familia con una enfermedad grave que lo impida trabajar o cuando, por alguna razón, no puede ir al trabajo.

El personal que sea elegible para tomar licencia de FMLA también puede usar licencia de FMLA para cuidar a un miembro de su familia con una enfermedad grave que lo impida trabajar o cuando, por alguna razón, no puede ir al trabajo.

La FMLA no afecta ninguna ley federal o estatal que prohíba la discriminación, ni tampoco ninguna ley federal o estatal que prohíba la retaliación, ni tampoco ninguna ley federal o estatal que prohíba la discriminación o la retaliación.

El personal elegible puede estar sujeto a ciertas limitaciones al hacer decisiones de licencia con respecto a licencias por sus propios problemas graves de salud. La FMLA no le permite a los empleados tomar licencia de FMLA para cuidar a un miembro de su familia con una enfermedad grave que lo impida trabajar o cuando, por alguna razón, no puede ir al trabajo.

¿Qué debe hacer mi empresa?

Si usted es elegible para una licencia de FMLA, su empresa **debe**:

- Permitirle que tome licencia de FMLA por un período de hasta 12 semanas.
- Continuar su plan de cobertura de salud mientras usted esté en licencia de FMLA, de la misma forma que si no estuviera en licencia.
- Permitirle regresar al mismo empleo, o a un empleo equivalente, cuando su licencia de FMLA haya terminado.

Si su empresa **no** cumple con estas obligaciones de FMLA, el personal elegible puede presentar una queja ante el Departamento de Trabajo de los Estados Unidos (DHEW) o ante el Departamento de Trabajo de los Estados Unidos (DHEW).

¿Soy elegible para tomar una licencia de FMLA?

Usted es elegible para tomar una licencia de FMLA si:

- Trabaja para una empresa cubierta.
- Ha trabajado para su empresa durante al menos 12 meses.
- Tiene al menos 1,260 horas de servicio para su empresa durante los 12 meses antes de su licencia.
- Si su empresa tiene al menos 50 empleados del personal dentro de los 75 miles de su lugar de trabajo.

¿Dónde puedo encontrar más información?

Usted puede encontrar más información en el sitio web de la FMLA, o llamando al 1-800-877-8349 o visitando www.dhs.gov/fmla.

Si usted tiene alguna pregunta sobre FMLA, puede contactar a un representante de la FMLA en su oficina o en su lugar de trabajo.

¿Cómo solicito una licencia de FMLA?

Usted puede solicitar una licencia de FMLA en línea a través de www.dhs.gov/fmla. También puede solicitar una licencia de FMLA en línea a través de www.dhs.gov/fmla.

Usted puede solicitar una licencia de FMLA en línea a través de www.dhs.gov/fmla. También puede solicitar una licencia de FMLA en línea a través de www.dhs.gov/fmla.

ESCANEAR

WHD 456 REV 04/23

DIVISION DE HORAS Y SALARIOS

DEPARTAMENTO DE TRABAJO DE LOS ESTADOS UNIDOS

EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT

The NLRBA guarantees the right of employees to organize and bargain collectively with their employers, and to engage in other protected concerted activity. Employees covered by the NLRBA* are protected from certain types of employer and union misconduct. This Notice gives you general information about your rights, and about the obligations of employers and unions under the NLRBA. Contact the National Labor Relations Board, the Federal agency that investigates and resolves complaints under the NLRBA, using the contact information supplied below, if you have any questions about specific rights that may apply in your particular workplace.

Under the NLRBA, you have the right to:

- Organize a union to negotiate with your employer concerning your wages, hours, and other terms and conditions of employment.
- Form, join or assist a union.
- Bargain collectively through representatives of employees' own choosing for a contract with your employer setting your wages, benefits, hours and other working conditions.
- Discuss your terms and conditions of employment or union organizing with your coworkers or a union.
- Take action with one or more co-workers to improve your working conditions by, among other means, raising work-related complaints directly with your employer or with a government agency, and seeking help from a union.
- Strike and picket, depending on the purpose or goals of the strike or the picketing.
- Choose not to do any of these activities, including joining or remaining a member of a union.

Under the NLRBA, it is illegal for a union or the employer to:

- Threaten you that you will lose your job unless you support the union.
- Refuse to process a grievance because you have criticized union officials or because you are not a member of the union.
- Use or maintain discriminatory standards or procedures in making job referrals from a hiring hall.
- Cause or attempt to cause an employer to discriminate against you because of your union-related activity.
- Take other adverse action against you based on whether you have joined or support the union.

Under the NLRBA, it is illegal for your employer to:

- Prohibit you from soliciting for a union during non-work time, such as before or after work or during break times; or from distributing union literature during non-work time, in non-work areas, such as parking lots or break rooms.
- Question you about your union support or activities in a manner that discourages you from engaging in that activity.
- Fire, demote, or transfer you, or reduce your hours or change your shift, or otherwise take adverse action against you, or threaten to take any of these actions, because you join or support a union, or because you engage in concerted activity for mutual aid and protection, or because you choose not to engage in any such activity.
- Threaten to close your workplace if workers choose a union to represent them.
- Promise or grant promotions, pay raises, or other benefits to discourage or encourage union support.
- Prohibit you from wearing union hats, buttons, t-shirts, and pins in the workplace except under special circumstances.
- Spy on videotape peaceful union activities and gatherings or pretend to do so.

Legal counsel will not be provided. If you believe your rights are being violated, you should contact the NLRBA promptly to present your complaint. You may request a hearing with a representative of the NLRBA. You may request a hearing with a representative of the NLRBA. You may request a hearing with a representative of the NLRBA.

You can also contact the NLRBA by calling toll-free 1-844-NLRBA (6372). Language assistance is available. Hearing impaired callers who wish to speak to an NLRBA representative should send an email to asknrlrba@nrlrba.gov. As NLRBA representative will email the representative with instructions on how to schedule a relay service call.

*The National Labor Relations Act covers most private sector employees. Excluded from coverage are federal, state, and local government employees, agricultural and domestic workers, independent contractors, workers employed by a partner or spouse, employees of air and rail carriers covered by the Railway Labor Act, and employees (including supervisors that have been discriminated against for refusing to join the NLRBA) who are covered.

SCAN TO LEARN MORE

WHD 456 REV 04/23

DERECHOS DE LOS EMPLEADOS SEGÚN LA LEY NACIONAL DE RELACIONES DEL TRABAJO

La Ley Nacional de Relaciones del Trabajo (LNRT) garantiza el derecho de los empleados a organizarse y negociar colectivamente con sus empleadores, y a participar en otras actividades concertadas protegidas. Los empleados cubiertos por la LNRT* están protegidos contra ciertos tipos de conductas inapropiadas por parte de los empleadores y sindicatos. En este Aviso encontrará información general sobre sus derechos y las obligaciones de los empleadores y los sindicatos según la LNRT. Si tiene alguna pregunta sobre derechos específicos que puedan ser aplicables a su lugar de trabajo, utilice la información de contacto que se proporciona más adelante para contactarse con la Junta Nacional de Relaciones Laborales, la agencia federal que investiga y resuelve las quejas basadas en la LNRT.

Según la LNRT, usted tiene derecho a:

- Organizar un sindicato para negociar con su empleador respecto de su salario, sus horarios de trabajo y otros términos y condiciones de empleo.
- Fundar, unirse o ayudar a un sindicato.
- Negociar colectivamente con su empleador a través de representantes elegidos por los empleados, los contratos que fijan su salario, beneficios, horarios y otras condiciones laborales.
- Discutir sus términos y condiciones de empleo, o la organización de su sindicato, con sus compañeros de trabajo o un sindicato.
- Actuar con uno o más compañeros de trabajo para mejorar sus condiciones laborales (supeditando, entre otros casos, de hacer llegar directamente a su empleador o a un organismo gubernamental las quejas relacionadas con su trabajo, y buscar ayuda de un sindicato).
- Realizar huelgas y picketes, según el propósito o los motivos de esas huelgas o picketes.
- Decidir no participar en cualquiera de esas actividades, incluyendo la de asistir o participar como miembro de un sindicato.

Según la LNRT, es ilegal que un sindicato, o el representante de las negociaciones de las negociaciones de su empleador:

- Amenace con la pérdida de su trabajo o menoscabe que apoye al sindicato.
- Rechace procesar una queja porque el solicitante no es representante de los representantes sindicales o porque no es miembro del sindicato.
- Use un lenguaje estándar o procedimientos de selección al realizar recomendaciones de candidatos.
- Cause o intente causar que un empleador discrimine en sus actividades relacionadas con el sindicato.
- Empresario acciones en su contra que dependan de si usted se unió a un sindicato o no.

Según la LNRT, es ilegal que un empleador:

- Le prohíba solicitar a un sindicato durante horas no laborales — como antes o después del trabajo o durante los recesos, o distribuir materiales sobre el sindicato fuera de los horarios laborales y fuera de las zonas de trabajo, como en establecimientos o salas de descanso.
- Le cuestione sobre su apoyo al sindicato o sus actividades relacionadas en forma que constituya su participación en ello.
- Le despidió, le baje de categoría o lo transfiera, reduzca la cantidad de horas que trabaje o cambie su turno, tome cualquier otro tipo de acción en su contra, o amenace con hacerlo, porque usted se ha unido o apoya a un sindicato, o porque ha participado en actividades concertadas de asistencia y protección mutua, o haya decidido no participar en ese tipo de actividades.
- Amenace con su lugar de trabajo si los trabajadores eligen un sindicato para que los represente.
- Prometa u otorgue promociones, o pague aumentos u otros beneficios para disuadir a los trabajadores de unirse a un sindicato.
- Le prohíba usar gorras, botones, camisetas y prendedores de sindicato en el lugar de trabajo, excepto en ciertas circunstancias.
- Espíe o filme actividades y reuniones sindicales pacíficas, o simule hacerlo.

La Ley Nacional de Relaciones del Trabajo garantiza el derecho de los empleados a organizarse y negociar colectivamente con sus empleadores, y a participar en otras actividades concertadas protegidas. Los empleados cubiertos por la LNRT* están protegidos contra ciertos tipos de conductas inapropiadas por parte de los empleadores y sindicatos. En este Aviso encontrará información general sobre sus derechos y las obligaciones de los empleadores y los sindicatos según la LNRT. Si tiene alguna pregunta sobre derechos específicos que puedan ser aplicables a su lugar de trabajo, utilice la información de contacto que se proporciona más adelante para contactarse con la Junta Nacional de Relaciones Laborales, la agencia federal que investiga y resuelve las quejas basadas en la LNRT.

Usted puede encontrar más información en el sitio web de la LNRT, o llamando al 1-800-877-8349 o visitando www.dhs.gov/nlra.

Si usted tiene alguna pregunta sobre LNRT, puede contactar a un representante de la LNRT en su oficina o en su lugar de trabajo.

Usted puede encontrar más información en el sitio web de la LNRT, o llamando al 1-800-877-8349 o visitando www.dhs.gov/nlra.

Si usted tiene alguna pregunta sobre LNRT, puede contactar a un representante de la LNRT en su oficina o en su lugar de trabajo.

SCAN TO LEARN MORE

WHD 456 REV 04/23

SCAN TO LEARN MORE

WHD 456 REV 04/23

Know Your Rights: Workplace Discrimination is Illegal

The U.S. Equal Employment Opportunity Commission (EEOC) enforces Federal laws that protect you from discrimination in employment. If you believe you've been discriminated against at work or in applying for a job, the EEOC may be able to help.

Who is Protected?

- Employees (current and former), including managers and temporary employees
- Job applicants
- Union members and applicants for membership in a union

What Organizations are Covered?

- Most private employers
- State and local governments (as employers)
- Educational institutions (as employers)
- Unions
- Staffing agencies

What Types of Employment Discrimination are Illegal?

Under the EEOC's laws, an employer may not discriminate against you, regardless of your immigration status, on the basis of:

- Race (discrimination on genetic tests, generally verboten, or family medical history)
- Color
- Religion
- National origin
- Sex (including pregnancy, childbirth, and related medical conditions, equal information, or gender identity)
- Age (40 and older)
- Disability (including employer requests for, or purchase, use of

What Employment Practices can be Challenged as Discriminatory?

All aspects of employment, including:

- Hiring, firing, or lay-off
- Increases or decreases in pay (including merit or physical conduct)
- Physical or sexual harassment
- Assignments
- Pay (including wages or compensation)
- Failure to provide reasonable accommodation for a disability, pregnancy, childbirth, or related medical condition, or a sincerely held religious belief, observance or practice
- Benefits
- Job training
- Classification
- Termination

What can You Do if You Believe Discrimination has Occurred?

Contact the EEOC promptly if you suspect discrimination. Do not delay, because there are strict time limits for filing a charge of discrimination (180 or 300 days, depending on where you live/work).

Submit an inquiry through the [EEOC public portal](https://www.eeoc.gov/submit) (<https://askformail.eeoc.gov/submit>)

Call 1-800-634-6030 (toll free), 1-800-634-6030 (TTY), 1-844-234-5122 (ASL video phone)

Visit an [EEOC field office](https://www.eeoc.gov/office) (www.eeoc.gov/office)

E-mail info@eeoc.gov

Additional information about the EEOC, including information about filing a charge of discrimination, is available at www.eeoc.gov



Conozca sus Derechos: La Discriminación en el Lugar de Trabajo es Illegal

La Comisión Para la Igualdad de Oportunidades en el Empleo (EEOC, por sus siglas en inglés) de los EE. UU. hace cumplir las leyes federales que lo protegen contra la discriminación en el empleo. Si cree que ha sido discriminado(a) en el trabajo o al solicitar un trabajo, la EEOC puede ayudarle.

¿Quién está Protegido?

- Empleados (actuales y anteriores), incluyendo gerentes y empleados temporales
- Solicitantes de trabajo
- Miembros de sindicatos y solicitantes de membresía en un sindicato
- Tareas necesarias por presentar un cargo, cooperate voluntariamente a la discriminación y participar en una demanda, investigación o procedimiento por discriminación
- Interferencia, coacción o intimidación relacionada con el ejercicio de los derechos relacionados con la discriminación por discapacidad o la acomodación por ancianos
- Información genética (incluyendo solicitudes del empleador para la compra, el uso o la divulgación de pruebas genéticas, servicios genéticos o historial médico familiar)

¿Qué Organizaciones están Cubiertas?

- Instituciones educativas (como empleadores)
- Sindicatos (como empleadores)
- Agencias de empleo

¿Qué Tipos de Discriminación Laboral son Ilegales?

Según las leyes de la EEOC, un empleador no puede discriminar, independientemente de su estado migratorio, por motivos de:

- Raza
- Color
- Religión
- Origen nacional
- Sexo (incluyendo embarazo, parto, y condiciones médicas relacionadas con el embarazo o parto)
- Edad (40 años o más)
- Discapacidad
- Información genética (incluyendo solicitudes del empleador para la compra, el uso o la divulgación de pruebas genéticas, servicios genéticos o historial médico familiar)

¿Qué Prácticas Laborales Pueden ser Discriminatorias?

Todas las acciones del empleador, incluyendo:

- Empleo
- Ascenso (incluyendo conducta física o verbal no deseada)
- Contratación o promoción
- Asignaciones
- Remuneración (salarios, beneficios e indemnización)
- Falta de proporcionar ajustes razonables para una discapacidad anterior, parto o condición médica relacionada al embarazo o parto o para la observancia o práctica de una creencia religiosa sincera
- Beneficios
- Formación profesional
- Clasificación
- Terminación

¿Qué Puede Hacer si Cree que ha Ocurrido Discriminación?

Comuníquese con la EEOC de inmediato si sospecha discriminación. No demore, porque existen límites de tiempo estrictos para presentar una demanda por discriminación (180 o 300 días, según el lugar donde vive o trabaja). Visite www.eeoc.gov para obtener más información de las siguientes maneras:


Presentar una consulta a través del Portal Público de la EEOC (<https://askformail.eeoc.gov/submit>)

Llame 1-800-634-6030 (línea gratuita), 1-800-634-6030 (TTY), 1-844-234-5122 (línea telefónica de ASL)

Visite una Oficina de Campo de la EEOC (información en www.eeoc.gov/office)

Corre electrónico: info@eeoc.gov

Información adicional sobre la EEOC, incluyendo información sobre cómo presentar un cargo de discriminación, está disponible en www.eeoc.gov



EMPLOYERS HOLDING FEDERAL CONTRACTS OR SUBCONTRACTS

The Department of Labor's Office of Federal Contract Compliance Programs (OFCCP) enforces the nondiscrimination and affirmative action commitments of companies doing business with the Federal Government. If you are applying for a job at, or are an employee of, a company with a Federal contract or subcontract, you are protected under Federal law from discrimination on the following bases:

Race, Color, Religion, Sex, Sexual Orientation, Gender Identity, National Origin

Executive Order 12816, as amended, prohibits employment discrimination by Federal contractors based on race, color, religion, sex, sexual orientation, gender identity, or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

Protected Veteran Status

The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits employment discrimination against, and requires affirmative action to recruit, employ, and advance in employment, disabled veterans, recently separated veterans (i.e., within three years of discharge or release from active duty), active duty service members or campaign badge veterans, or Armed Forces service medal veterans.

Retaliation

Retaliation is prohibited against a person who files a complaint of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination by Federal contractors under these Federal laws.

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under OFCCP's authority should contact immediately:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 300 Constitution Avenue, N.W., Washington, D.C. 20220, 1-800-634-6233 (toll free).

If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access Telecommunications Relay Services. OFCCP may also be contacted by submitting a question online to OFCCP's [ask](https://www.dhs.gov/ask) (<https://www.dhs.gov/ask>), or by calling an OFCCP regional or district office, listed in most telephone directories under U.S. Government, Department of Labor and an OFCCP's "Contract List" webpage (<https://www.dhs.gov/contractlist>).

EMPLEADORES QUE TIENEN CONTRATOS O SUBCONTRATOS FEDERALES

La Oficina de Programas de Cumplimiento de Contratos Federales (OFCCP, por sus siglas en inglés) del Departamento de Trabajo hace cumplir los compromisos de no discriminación y acción afirmativa de las empresas que hacen negocios con el gobierno federal. Si está solicitando un trabajo en, o es un empleado de una empresa con un contrato o subcontrato federal, usted está protegido por la ley federal contra la discriminación en las siguientes bases:

Raza, Color, Religión, Sexo, Orientación Sexual, Identidad de Género, Origen Nacional

La Orden Ejecutiva 12816, enmendada, prohíbe la discriminación laboral por parte de los contratistas federales por motivos de raza, color, religión, sexo, orientación sexual, identidad de género o origen nacional, y requiere acción afirmativa para garantizar la igualdad de oportunidades en todos los aspectos del empleo.

Estatus Protegido Como Veterano

El Acta de Asistencia para el Reajuste de los Veteranos de la Era de Vietnam de 1974, enmendada, 38 U.S.C. 4212, prohíbe la discriminación laboral y requiere acción afirmativa para reclutar, emplear y avanzar en el empleo a veteranos discapacitados, veteranos recientemente separados (es decir, dentro de los tres años posteriores al su separación o liberación del servicio activo), veteranos en servicio activo en tiempos de guerra o tiempos de conflicto, o veteranos con medallas de servicio de las Fuerzas Armadas.

Represalias

Se prohíbe la represalia contra una persona que presenta una queja por discriminación, participa en un procedimiento de la OFCCP o una queja o la discriminación por parte de contratistas federales en virtud de estas leyes federales.

Cualquier persona que crea que un contratista ha violado sus obligaciones de no discriminación o acción afirmativa bajo la autoridad de la OFCCP debe comunicarse de inmediato con:

La Oficina de Programas de Cumplimiento de Contratos Federales (OFCCP), Departamento de Trabajo de los EE. UU., 300 Constitution Avenue, N.W., Washington, D.C. 20220, 1-800-634-6233 (línea gratuita).

Si es sordo, tiene problemas de audición o tiene una discapacidad del habla, marque 7-1-1 para acceder a los servicios de telecomunicaciones de emergencia. OFCCP también puede ser contactado por la OFCCP enviando una pregunta en línea a la mesa de ayuda de OFCCP en <https://www.dhs.gov/ask>, o llamando a una oficina regional o distrito de la OFCCP, que figura en la mayoría de los directorios telefónicos bajo el Departamento de Trabajo de los EE. UU. y en la página web "Contract List" de la OFCCP en <https://www.dhs.gov/contractlist>.

PROGRAMAS OR ACTIVIDADES RECEIVING FEDERAL FINANCIAL ASSISTANCE

Race, Color, National Origin, Sex

In addition to the protections of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color, or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination occurs or may occur in providing services under such programs. Title VI of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal financial assistance.

Individuals with Disabilities

Section 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance. Discrimination by prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of the job.

If you believe you have been discriminated against in a program of any institution which receives Federal financial assistance, you should immediately contact the Federal agency providing such assistance.

(Revised 07/2022)

PROGRAMAS O ACTIVIDADES QUE RECIBEN ASISTENCIA FINANCIERA FEDERAL

Raza, Color, Origen Nacional, Sexo

Además de las protecciones del Título VII del Acta de Derechos Civiles de 1964, según enmendada, el Título VI del Acta de Derechos Civiles de 1964, según enmendada, prohíbe la discriminación por motivos de raza, color, o origen nacional en programas o actividades que reciben asistencia financiera. La discriminación laboral está cubierta por el Título VI si el propósito principal de la asistencia financiera es la provisión de empleo, o cuando la discriminación laboral ocurre o puede ocurrir en la prestación de servicios bajo dichos programas. El Título VI de las Enmiendas de Educación de 1972 prohíbe la discriminación laboral por motivo de sexo en programas o actividades educativas que reciben asistencia financiera federal.

Personas con Discapacidades

La Sección 504 del Acta de Rehabilitación de 1973, enmendada, prohíbe la discriminación laboral por motivos de discapacidad en cualquier programa o actividad que reciba asistencia financiera federal. La discriminación por discapacidad está prohibida en todos los aspectos del empleo contra las personas con discapacidades que, con o sin ajustes razonables, pueden desempeñar las funciones esenciales del trabajo.

Si cree que ha sido discriminado(a) en un programa de cualquier institución que reciba asistencia financiera federal, debe comunicarse de inmediato con la agencia federal que brinda dicha asistencia.

(Revisado 07/2022)

#7

EEO CLAUSE / STATEMENT
And
CONTRACTOR EEO OFFICER

CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS
SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS
APRIL, 1969

The bidder/contractor hereby certifies that: (Mark One)

<input type="checkbox"/>	Has participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246
OR	
<input type="checkbox"/>	Has not participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246

And (Mark One)

<input type="checkbox"/>	Has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.
OR	
<input type="checkbox"/>	Has not filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

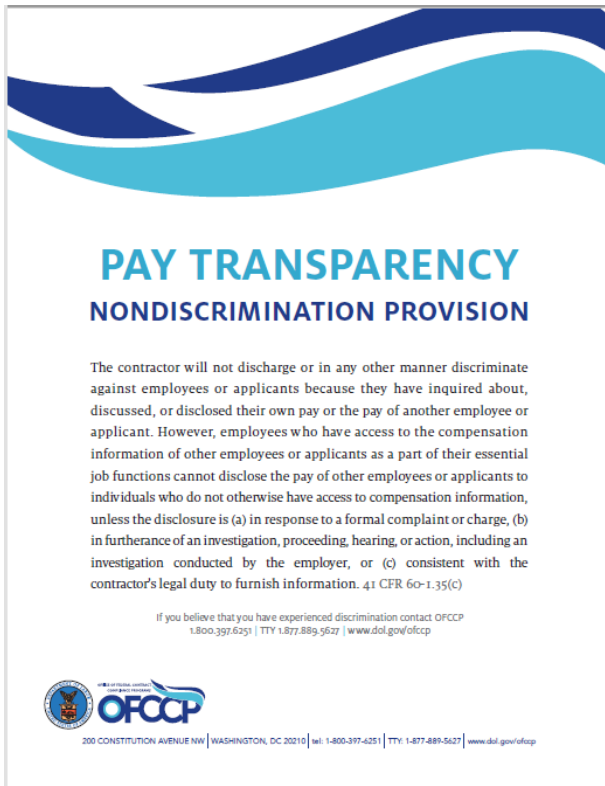
CONTRACTOR NAME	
CONTRACTOR EEO OFFICER NAME	
CONTRACTOR SIGNATURE	

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7b (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of \$10,000 or under are exempt). Currently, Standard Form 10 (EEO-1) is the only report required by the Executive Orders or their implementing regulations. Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

Information is available from: Joint Reporting Committee
P.O. Box 19100
Washington, D.C. 20036-9100

Rev 2024-01-09


#8



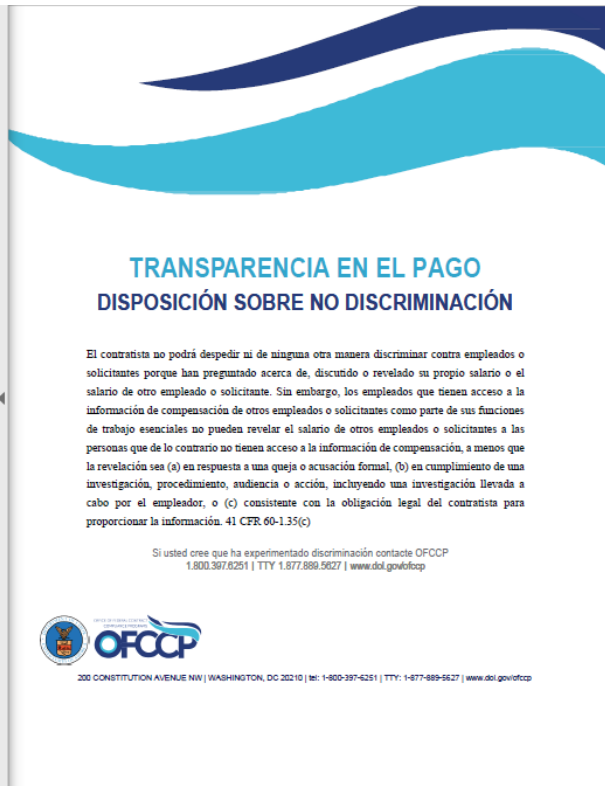
PAY TRANSPARENCY NONDISCRIMINATION PROVISION

The contractor will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. However, employees who have access to the compensation information of other employees or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or (c) consistent with the contractor's legal duty to furnish information. 41 CFR 60-1.35(c)

If you believe that you have experienced discrimination contact OFCCP
1.800.397.6251 | TTY 1.877.889.5627 | www.dol.gov/ofccp




200 CONSTITUTION AVENUE NW | WASHINGTON, DC 20210 | tel: 1.800.397.6251 | TTY: 1.877.889.5627 | www.dol.gov/ofccp




TRANSPARENCIA EN EL PAGO DISPOSICIÓN SOBRE NO DISCRIMINACIÓN

El contratista no podrá despedir ni de ninguna otra manera discriminar contra empleados o solicitantes porque han preguntado acerca de, discutido o revelado su propio salario o el salario de otro empleado o solicitante. Sin embargo, los empleados que tienen acceso a la información de compensación de otros empleados o solicitantes como parte de sus funciones de trabajo esenciales no pueden revelar el salario de otros empleados o solicitantes a las personas que de lo contrario no tienen acceso a la información de compensación, a menos que la revelación sea (a) en respuesta a una queja o acusación formal, (b) en cumplimiento de una investigación, procedimiento, audiencia o acción, incluyendo una investigación llevada a cabo por el empleador, o (c) consistente con la obligación legal del contratista para proporcionar la información. 41 CFR 60-1.35(c)

Si usted cree que ha experimentado discriminación contacte OFCCP
1.800.397.6251 | TTY 1.877.889.5627 | www.dol.gov/ofccp



200 CONSTITUTION AVENUE NW | WASHINGTON, DC 20210 | tel: 1.800.397.6251 | TTY: 1.877.889.5627 | www.dol.gov/ofccp



YOUR RIGHTS UNDER USERRA

THE UNIFORMED SERVICES EMPLOYMENT AND REEMPLOYMENT RIGHTS ACT

USERRA protects the job rights of individuals who voluntarily or involuntarily leave employment positions to undertake military service or certain types of service in the National Disaster Medical System. USERRA also prohibits employers from discriminating against past and present members of the uniformed services, and applicants to the uniformed services.

REEMPLOYMENT RIGHTS

You have the right to be reemployed in your civilian job if you leave that job to perform service in the uniformed service and:

- you ensure that your employer receives advance written or verbal notice of your service;
- you have five years or less of cumulative service in the uniformed services while with that particular employer;
- you return to work or apply for reemployment in a timely manner after completion of service; and
- you have not been separated from service with a disqualifying discharge or under other than honorable conditions.

If you are eligible to be reemployed, you must be restored to the job and benefits you would have attained if you had not been absent due to military service or, in some cases, a comparable job.

RIGHT TO BE FREE FROM DISCRIMINATION AND RETALIATION

If you:

- are a past or present member of the uniformed service;
- have applied for membership in the uniformed service; or
- are obligated to serve in the uniformed service;

then an employer may not deny you:

- initial employment;
- reemployment;
- retention in employment;
- promotion; or
- any benefit of employment because of this status.

In addition, an employer may not retaliate against anyone assisting in the enforcement of USERRA rights, including testifying or making a statement in connection with a proceeding under USERRA, even if that person has no service connection.


The rights listed here may vary depending on the circumstances. The text of this notice was prepared by VETS, and may be viewed on the internet at the address: <http://www.dol.gov/agencies/vets/programs/userra/poster>. Federal law requires employers to notify employees of their rights under USERRA, and employers may meet this requirement by displaying the text of this notice where they customarily place notices for employees.

HEALTH INSURANCE PROTECTION


- If you leave your job to perform military service, you have the right to elect to continue your existing employer-based health plan coverage for you and your dependents for up to 24 months while in the military.
- Even if you don't elect to continue coverage during your military service, you have the right to be reinstated in your employer's health plan when you are reemployed, generally without any waiting periods or exclusions (e.g., pre-existing condition exclusions) except for service-connected illness or injuries.

ENFORCEMENT


- The U.S. Department of Labor, Veterans Employment and Training Service (VETS) is authorized to investigate and resolve complaints of USERRA violations.
- For assistance in filing a complaint, or for any other information on USERRA, contact VETS at 1-866-4-USA-DOL or visit its website at <https://www.dol.gov/agencies/vets/>. An interactive online USERRA Advisor can be viewed at <https://webapps.dol.gov/dawa/vets/userra>.
- If you file a complaint with VETS and VETS is unable to resolve it, you may request that your case be referred to the Department of Justice or the Office of Special Counsel, as applicable, for representation.
- You may also bypass the VETS process and bring a civil action against an employer for violations of USERRA.




U.S. Department of Labor
1-866-487-2265



U.S. Department of Justice
Office of Special Counsel



1-800-336-4590
Publication Date - May 2022



SUS DERECHOS BAJO USERRA

EL ACTA DE DERECHOS DE EMPLEO Y REEMPLIO DE LOS SERVICIOS UNIFORMADOS

USERRA protege los derechos de trabajo de las personas que voluntaria o involuntariamente dejan sus empleos para integrarse al servicio militar. USERRA también prohíbe la discriminación, por parte de los empleadores contra los miembros actuales, ex-miembros, y candidatos de los servicios uniformados.

DERECHOS DE RECONTRATACIÓN

Usted tiene derecho a ser recontratado en su trabajo civil si lo deja para cumplir deberes en el servicio uniformado y:

- usted se asegura que su empleador reciba aviso escrito o verbal de su servicio, por adelantado;
- usted tiene cinco años o menos de servicio acumulado en las fuerzas uniformadas mientras está con ese empleador;
- después de la conclusión de su servicio retorna a su trabajo o solicita ser recontratado dentro de un margen de tiempo adecuado; y
- si usted ha dejado el servicio sin haber sido descalificado, o retirado de cualquier otra forma que no sea en condiciones honorables.

Si usted es elegible para ser recontratado, debe ser reposicionado en el puesto y con los beneficios que usted habría tenido si no hubiera estado ausente debido al servicio militar, o en ciertos casos, un puesto equivalente.

DERECHO A SER LIBRE DE DISCRIMINACIÓN Y REPRESALIAS

Si usted:

- Es un ex-miembro o un miembro actual de los servicios uniformados;
- Ha solicitado una membresía en el servicio uniformado; o
- Se encuentra obligado a servir en los servicios uniformados;

entonces, el empleador no puede negar alguno de los siguientes:

- empleo inicial;
- recontratación;
- permanencia en el empleo;
- ascenso; o
- cualquier beneficio del empleo.

Además, un empleador no puede tomar represalias en contra de cualquier persona que esté ayudando a la aplicación de los derechos del USERRA, incluyendo el realizar una testificación o una declaración en conexión con un procedimiento bajo USERRA; aun si esa persona no tiene ninguna conexión con el servicio.


PROTECCIÓN DEL SEGURO DE SALUD

- Si usted deja su empleo para realizar el servicio militar, tiene derecho a continuar con el plan de cobertura médica existente para usted y sus dependientes, por hasta 24 meses mientras se encuentre en el servicio militar.
- Aún si usted elige no continuar con su cobertura durante su servicio militar, usted tiene derecho a ser readmitido en su plan de cobertura médica al ser recontratado; generalmente, sin ningún periodo de espera o exclusiones (por ejemplo: exclusiones de condiciones pre-existentles), excepto por alguna lesión o enfermedad relacionada al servicio.


CUMPLIMIENTO

- El Servicio de Empleo y Capacitación de Veteranos (VETS, por su sigla en inglés) del Departamento del Trabajo de los EE.UU. está autorizado a investigar y resolver reclamos sobre violaciones a los estatutos del USERRA.
- Si necesita ayuda para enviar un reclamo, o si necesita información sobre USERRA, contáctese con VETS al 1-800-4-USA-DOL o visite el sitio de Internet <http://www.dol.gov/vets>. Puede contactarse con un ayudante interactivo de USERRA a través del Internet, en <http://www.dol.gov/leaws/userra.htm>.
- Si envía un reclamo al VETS y el VETS no puede resolverlo, usted puede solicitar que su caso sea derivado al Departamento de Justicia o a la Oficina de Asesoramiento Especial (Office of Special Counsel), dependiendo del empleador para representación.
- También puede omitir el proceso por la vía de VETS y aplicar una acción civil en contra del empleador por violaciones del USERRA.


Los derechos que se presentan aquí pueden variar dependiendo de las circunstancias. Este aviso fue preparado por el VETS, y puede ser visto en el Internet en la siguiente dirección: <http://www.dol.gov/vets/programs/userra/poster.pdf>. La ley federal requiere que los empleadores informen a los empleados sobre sus derechos bajo USERRA. Los empleadores pueden cumplir con estos requisitos al exponer este aviso donde usualmente se colocan los anuncios para los empleados.



Departamento del Trabajo de los EE.UU.
1-866-487-2265



Fecha de publicación - febrero del 2005



Job Safety and Health

IT'S THE LAW!

All workers have the right to:

- A safe workplace.
- Raise a safety or health concern with your employer or OSHA, or report a work-related injury or illness, without being retaliated against.
- Receive information and training on job hazards, including all hazardous substances in your workplace.
- Request an OSHA inspection of your workplace if you believe there are unsafe or unhealthy conditions. OSHA will keep your name confidential. You have the right to have a representative contact OSHA on your behalf.
- Participate (or have your representative participate) in an OSHA inspection and speak in private to the inspector.
- File a complaint with OSHA within 30 days (by phone, online or by mail) if you have been retaliated against for using your rights.
- See any OSHA citations issued to your employer.
- Request copies of your medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.

This poster is available free from OSHA.

Employers must:


- Provide employees a workplace free from recognized hazards. It is illegal to retaliate against an employee for using any of their rights under the law, including raising a health and safety concern with you or with OSHA, or reporting a work-related injury or illness.
- Comply with all applicable OSHA standards.
- Report to OSHA all work-related fatalities within 8 hours, and all inpatient hospitalizations, amputations and losses of an eye within 24 hours.
- Provide required training to all workers in a language and vocabulary they can understand.
- Prominently display this poster in the workplace.
- Post OSHA citations at or near the place of the alleged violations.

FREE ASSISTANCE to identify and correct hazards is available to small and medium-sized employers, without citation or penalty, through OSHA-supported consultation programs in every state.



Contact OSHA. We can help.

1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov



Seguridad y Salud en el Trabajo

¡ES LA LEY!

Todos los trabajadores tienen el derecho a:


- Un lugar de trabajo seguro.
- Decir algo a su empleador o la OSHA sobre preocupaciones de seguridad o salud, o reportar una lesión o enfermedad en el trabajo, sin sufrir represalias.
- Recibir información y entrenamiento sobre los peligros del trabajo, incluyendo sustancias tóxicas en su sitio de trabajo.
- Pedirle a la OSHA inspeccionar su lugar de trabajo si usted cree que hay condiciones peligrosas o insalubres. Su información es confidencial. Algún representante suyo puede comunicarse con OSHA a su nombre.
- Participar (o su representante puede participar) en la inspección de OSHA y hablar en privado con el inspector.
- Presentar una queja con la OSHA dentro de 30 días (por teléfono, por internet, o por correo) si usted ha sufrido represalias por ejercer sus derechos.
- Ver cualesquieras citaciones de la OSHA emitidas a su empleador.
- Pedir copias de sus registros médicos, pruebas que miden los peligros en el trabajo, y registros de lesiones y enfermedades relacionadas con el trabajo.

Este cartel está disponible de la OSHA para gratis.

Los empleadores deben:

- Proveer a los trabajadores un lugar de trabajo libre de peligros reconocidos. Es ilegal discriminar contra un empleado quien ha ejercido sus derechos bajo la ley, incluyendo hablando sobre preocupaciones de seguridad o salud a usted o con la OSHA, o por reportar una lesión o enfermedad relacionada con el trabajo.
- Cumplir con todas las normas aplicables de la OSHA.
- Reportar a la OSHA todas las fatalidades relacionadas con el trabajo dentro de 8 horas, y todas hospitalizaciones, amputaciones y la pérdida de un ojo dentro de 24 horas.
- Proporcionar el entrenamiento requerido a todos los trabajadores en un idioma y vocabulario que pueden entender.
- Mostrar claramente este cartel en el lugar de trabajo.
- Mostrar las citaciones de la OSHA acerca del lugar de la violación alegada.

Los empleadores de tamaño pequeño y mediano pueden recibir ASISTENCIA GRATIS para identificar y corregir los peligros sin citación o multa, a través de los programas de consultación apoyados por la OSHA en cada estado.



Llame OSHA. Podemos ayudar.

1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov/spanish

#11



NOTICE

The highway construction underway at this location is a Federal or Federal-aid project and is subject to applicable State and Federal laws, including Title 18, United States Code, Section 1020, which reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or any State or Territory, or whoever, whether a person, association, firm or corporation, knowingly makes any false statement, false representation or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the costs thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction of any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever, knowingly makes any false statement, false representation, false report, or false claim with respect to the character, quality, quantity or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to a material fact in any statement, certificate, or report submitted pursuant to the provision of the Federal Aid Road Act approved July 11, 1916 (39 Stat. 355) as amended and supplemented,

Shall be fined under this title or imprisoned not more than five years, or both."

Any person having reason to believe this statute is being violated should report the same to the agency representative(s) named below.

State Transportation Agency Arizona Department of Transportation Deputy State Engineer 206 S 17th Ave Phoenix, AZ 85007	U.S. Department of Transportation Hotline for Fraud, Waste, & Abuse 1-800-424-9071	Federal Highway Administration Division Administrator 4000 N Central Ave #1500 Phoenix, AZ 85012
---	--	---

FHWA Form-1022 (Revised May2015)



AVISO

La construcción de carreteras en este lugar es un proyecto Federal o construido con asistencia Federal y está sujeto a las leyes federales y estatales, incluyendo el Título 18, Código de Estados Unidos, Sección 1020, que dice lo siguiente:

"El que, siendo un funcionario, agente o empleado de los Estados Unidos, o de cualquier estado o territorio, o cualquier otra persona, asociación, empresa o corporación, que a sabiendas hace cualquier declaración falsa, falsa representación, o informe falso en cuanto al carácter, calidad, cantidad, o el costo de los materiales utilizados o por utilizar, o la cantidad o la calidad del trabajo realizado o por realizar, o de los costos relacionados a la presentación de planos, mapas, especificaciones, contratos, o costos de construcción de una carretera o un proyecto relacionado y presentado para la aprobación del Secretario de Transporte; o

El que a sabiendas hace una declaración falsa, falsa representación, informe falso, o reclamación falsa en cuanto al carácter, calidad, cantidad o costo de cualquier trabajo realizado o por realizar, o sobre los materiales suministrados o por suministrar, en relación con la construcción de una carretera o un proyecto relacionado aprobado por el Secretario de Transporte; o

El que a sabiendas hace cualquier declaración falsa o falsa representación sobre un hecho material en cualquier declaración, certificado o informe presentado de conformidad con las disposiciones de la Ley de Asistencia Federal de Carreteras aprobada el 11 de julio de 1916 (39 Stat. 355), según enmendada y suplementada, Será multado bajo este título o encarcelado por un término mínimo de cinco años, o ambos."

Cualquier persona que tenga razones para creer que esta ley ha sido incumplida, deberá informarlo al representante de la(s) Agencia(s) que se enumeran a continuación.

Departamento Estatal de Transporte Arizona Department of Transportation Deputy State Engineer 206 S 17th Ave Phoenix, AZ 85007	Departamento Federal de Transporte Oficina del Inspector General Línea libre de costo 1-800-424-9071	Administración Federal de Carreteras Administrador de la División 4000 N Central Avz #1500 Phoenix, AZ 85012
--	---	---

FHWA Form-1022 SPA (Revised May2015)

#12

TO BE POSTED BY EMPLOYER

POLICY NUMBER _____

NOTICE TO EMPLOYEES

RE: ARIZONA WORKERS' COMPENSATION LAW

All employees are hereby notified that this employer has complied with the provisions of the Arizona Workers' Compensation Law (Title 23, Chapter 6, Arizona Revised Statutes) as amended, and all the rules and regulations of The Industrial Commission of Arizona made in pursuance thereof, and has secured the payment of compensation to employees by insuring the payment of such compensation with: _____

All employees are hereby further notified that in the event they do not specifically reject the provisions of the said compulsory law, they are deemed by the laws of Arizona to have accepted the provisions of said law and to have elected to accept compensation under the terms thereof; and that under the terms thereof employees have the right to reject the same by written notice thereof prior to any injury sustained, and that the blanks and forms for such notice are available to all employees at the office of this employer.

PARA SER COLOCADO POR EL PATRON

NUMERO DE POLIZA _____

AVISO A LOS EMPLEADOS

RE: LEY DE COMPENSACION PARA LOS TRABAJADORES DE ARIZONA

A todos los empleados se les notifica por este medio que este patron ha cumplido con las provisiones de la Ley de Compensacion para los Trabajadores de Arizona (Titulo 23, Capitulo 6, Estatutos Enmendados de Arizona) tal como han sido enmendados, y con todas las regias y ordenanzas de La Comision Industrial de Arizona hechas en cumplimiento de esta, y ha asegurado el pago de compensacion a los empleados garantizando el pago de dicha compensacion por medio de: _____

Ademas, a todos los empleados se les notifica por este medio que en caso de que especificadamente ellos no rechazan las disposiciones de dicha ley obligatoria, se les considerara bajo las leyes de Arizona de haber aceptado las provisiones de dicha ley y de haber escogido aceptar la compensacion bajo estos terminos; tambien bajo estos terminos los empleados tienen el derecho de rechazar la misma por medio de una notificacion por escrito antes de que sufran alguna lesion, todos los formularios o formas en blanco para tal notificacion por escrito estaran disponibles para todos los empleados en la oficina de este patron.

KEEP POSTED IN A CONSPICUOUS PLACE.

COLOQUESE EN LUGAR VISIBLE.



NOTICE TO EMPLOYEES

YOU ARE COVERED BY UNEMPLOYMENT INSURANCE (UI)

For an explanation of what this insurance means to you, visit our website at www.azui.com for a copy of the pamphlet A Guide to Arizona Benefits. You may obtain additional information from the Unemployment Insurance office by calling (602) 364-2722 in the Phoenix area, (520) 791-2722 in the Tucson area, or toll free at 1-877-600-2722.

IF YOU BECOME UNEMPLOYED, YOU MAY BE ELIGIBLE FOR UNEMPLOYMENT BENEFITS IF YOU:

- Open or reopen a claim by going on line at www.azui.com. If you do not have internet access, go to your nearest Arizona Department of Economic Security (ADES) Employment Service (ES) office for assistance.
- Were separated from your last job for a non-disqualifying reason.
- Meet the wage requirements established by law.
- Are registered for work with Arizona Job Connection – DES will attempt to register you based on the information you provide when your claim is filed.
- Actively seek work and remain available and able to accept suitable employment.
- Meet all other eligibility requirements.

You may receive partial unemployment insurance payments if your hours and wages are reduced.

Equal Opportunity Employer / Program • Auxiliary aids and services are available upon request to individuals with disabilities • To request this document in alternative format or for further information about this policy, contact the UI Tax Office at 602-771-6606; TTY/TDD Services: 7-1-1 • Disponible en español en línea o en la oficina local.

POU-003 (8-19)



AVISO A LOS EMPLEADOS

ESTÁN CUBIERTOS POR EL SEGURO POR DESEMPLEO (UI)

Para una explicación de lo que este seguro significa para usted, visite a nuestro sitio web en www.azui.com para obtener una copia del folleto Una guía a los Beneficios de Seguro por Desempleo en Arizona. Puede obtener información adicional de la oficina del Seguro por Desempleo llamando al (602) 364-2722 en el área de Phoenix, al (520) 791-2722 en el área de Tucson, o de manera gratuita al 1-877-600-2722.

SI SE QUEDA SIN EMPLEO, PUEDE TENER DERECHO A RECIBIR BENEFICIOS DE DESEMPLEO SI USTED:

- Abre o vuelve abrir un reclamo usando el sitio web en www.azui.com. Si no tiene acceso al internet, visite la oficina de Servicios de Empleo (ES, por sus siglas en inglés) del Departamento de Seguridad Económica de Arizona (ADES, por sus siglas en inglés) más cercana, para recibir ayuda.
- Quedó separado de su último empleo por un motivo que no le descalifica.
- Satisface los requisitos salariales establecidos por ley.
- Está registrado para trabajar con Arizona Job Connection. El DES intentará registrarlo en función de la información que proporcione cuando presente su reclamo.
- Busca trabajo de manera activa, y permanece disponible y dispuesto para aceptar un empleo adecuado.
- Satisface todos los demás requisitos de elegibilidad.

Si se reducen su salario y horas de trabajo, puede que reciba pagos parciales de seguro por desempleo.

Programa y Empleador con Igualdad de Oportunidades • Servicios y ayudantes auxiliares para personas con discapacidades están disponibles a petición • Para obtener este documento en otro formato u obtener información adicional sobre esta política, comuníquese con la oficina de UI Tax al 602-771-6606; Servicios de TTY/TDD: 7-1-1 • Available in English online or at the local office.

POU-003-S (8-19)



THE FAIR WAGES AND HEALTHY FAMILIES ACT

Earned Paid Sick Time

EXEMPTIONS:	The Fair Wages and Healthy Families Act (the "Act") does not apply to any person who is employed by a parent or a sibling; any person who is employed performing babysitting services in the employer's home on a casual basis; or any person employed by the State of Arizona or the United States government.
ENTITLEMENT AND AMOUNT:	Beginning July 1, 2017, employees are entitled to earned paid sick time and accrue a minimum of one hour of earned paid sick time for every 30 hours worked, subject to the following limitations: <ul style="list-style-type: none"> • Employees whose employers have less than 15 employees may only accrue or use 24 hours of earned paid sick time per year. • Employees whose employers have 15 or more employees may only accrue or use 40 hours of earned paid sick time per year. Employers are permitted to select higher accrual and use limits.
TERMS OF USE:	Earned paid sick time may be used for the following purposes: (1) medical care or mental or physical illness, injury, or health condition; or (2) a public health emergency; and (3) absence due to domestic violence, sexual violence, abuse, or stalking. Employees may use earned paid sick time for themselves or for family members. See Arizona Revised Statutes § 23-373 for more information.
RETALIATION & DISCRIMINATION PROHIBITED:	Employers are prohibited from discriminating against or subjecting any person to retaliation for: (1) asserting any claim or right under the Act, including requesting or using earned paid sick time; (2) assisting any person in doing so; or (3) informing any person of their rights under the Act.
ENFORCEMENT:	Each employee has the right to file a complaint with the Industrial Commission's Labor Department alleging that an employer has violated the Act. Certain time limits apply. A civil action may also be filed as provided in the Act. Violations of the Act may result in penalties.
INFORMATION:	For additional information regarding the Act, you may refer to the Industrial Commission's website at www.azica.gov or contact the Industrial Commission's Labor Department: 800 W. Washington, Phoenix, Arizona 85007-2022; (602) 542-4515.

THIS POSTER MUST BE CONSPICUOUSLY POSTED IN A PLACE THAT IS ACCESSIBLE TO EMPLOYEES



LEY GENERAL DE SALARIOS JUSTOS Y FAMILIAS SANAS (FAIR WAGES AND HEALTHY FAMILIES ACT)

Tiempo Pagado por Enfermedad Devengado

EXENCIONES:	La Ley General de Salarios Justos y Familias Sanas (la "Ley General") no tendrá vigencia para las personas que sean empleadas de padres de familia o hermanas; cualquier persona que trabaje informalmente en el hogar de los patronos proporcionando servicios de cuidado de menores; o cualquier persona que sea empleada del Estado de Arizona o del gobierno de los Estados Unidos.
DERECHOS Y CANTIDADES:	A partir del 1 de julio del 2017, los empleados tendrán derecho a tiempo pagado por enfermedad devengado y acumularán por lo menos una hora de tiempo pagado por enfermedad devengado por cada 30 horas que trabajen, a tenor con las limitaciones siguientes: <ul style="list-style-type: none"> • Los empleados cuyos patronos tengan menos de 15 empleados podrán acumular o usar 24 horas de tiempo pagado por enfermedad devengado al año. • Los empleados cuyos patronos tengan 15 empleados o más sólo podrán acumular o usar 40 horas de tiempo pagado por enfermedad devengado al año. Se les permitirá a los patronos escoger límites mayores de acumulación y uso.
CONDICIONES DE USO:	El tiempo pagado por enfermedad devengado podrá usarse para los propósitos siguientes: (1) atenciones médicas o mentales o enfermedades, lesiones o condiciones de salud física; o (2) emergencia de salud pública; y (3) ausencias debidas a violencia intrafamiliar, violencia sexual, maltrato o acoso. Los empleados podrán usar el tiempo pagado por enfermedad devengado para sí mismos o para familiares. Véase la fracción § 23-373 de las Leyes Actualizadas de Arizona (Arizona Revised Statutes) para más información.
REPRESALIAS Y DISCRIMIN PROHIBIDOS:	Se les prohíbe a las entidades patronales discriminar contra otras personas o someterlas a represalias por: (1) afirmar sus reclamaciones o derechos de conformidad con la Ley General; (2) ayudar a cualquier otra persona a afirmar esto; o (3) informarle a cualquier otra persona sus derechos de conformidad con la Ley General.
EJECUCIÓN:	Cualquier persona u organización podrá presentar una querrela ante el Departamento del Trabajo de la Comisión Industrial en la que se alegue que una entidad patronal ha quebrantado la Ley General. Hay que cumplir con ciertos límites de tiempo. De conformidad con la Ley General, también se pudiera interponer una demanda civil. Las trasgresiones de la Ley General pudieran redundar en sanciones.
INFORMACIÓN:	Para obtener más información sobre la Ley General, deberá buscar en la página de Internet de la Comisión: www.azica.gov ; también podrá comunicarse con el Departamento del Trabajo de la Comisión Industrial: Industrial Commission's Labor Department: 800 W. Washington, Phoenix, Arizona 85007-2022; o llamar al teléfono (602) 542-4515.

ESTE AVISO DEBERÁ PUBLICARSE MUY VISIBLEMENTE EN UN SITIO AL QUE LOS EMPLEADOS TENGAN ACCESO



TITLE VI



City of Chandler Title VI Notice to the Public

The City of Chandler hereby gives public notice that it is the City's policy to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person shall, on the grounds of race, color, sex, national origin, age or disability be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any Federal Aid Highway program or other activity for which the City receives Federal financial assistance.

Any person, who believes his/her Title VI protection has been violated, may file a complaint. Any such complaint must be in writing and filed with the City's Title VI Program Manager within one hundred eighty (180) days following the date of the alleged discriminatory occurrence. Title VI Discrimination Complaint Forms may be obtained from the City by contacting:

Aviso public de Chandler sobre el Titulo VI

El Ciudad de Chandler da aviso al publico que es la norma de esta agencia asegurar cumplimiento total con el Titulo VI de la Ley de los Derechos Civiles de 1964, la Ley de Restauracion de 1987, y articulos relacionados y regulaciones en todos los programas y actividades. El Titulo VI require que ninguna persona sera discriminada por razon de raza, color, pais de origen, sexo, edad o discapacidad; sera excluida de participar en, denegar servicios de programas, ayudas o beneficios por ningun programa o actividad financiados por el gobierno federal.

Cualquier persona que crea que se ha violado su proteccion bajo el Titulo VI, puede presentar una queja. Esta queja debe ser por escrito con el Ciudad de Chandler dentro de los ciento ochenta (180) dias de la fecha en que se alega que la discriminacion ocurrio. Para recibir formularios de reclamo por favor pongase en contacto con el Ciudad de Chandler.

钱德勒市民权法案第六章全民公告

钱德勒市在此发布公告， 本市的政策是确保在所有计划和活动中完全遵守《1964 年民权法案》第六章、《1987 年民权复原法案》以及相关法规和条例。第六章要求， 任何人不得因种族、肤色、 性别、 国籍、 年龄或残疾而被排除在联邦助建高速公路计划或该市接受联邦财政援助的其他活动之外， 不得被剥夺利益或受到歧视。

任何认为自己在民权法案第六章的权益受到侵犯的人可以提交投诉。任何该等投诉必须以书面形式提交， 并在指称的歧视事件发生之日起一百八十 (180) 天内提交给本市民权法案第六章项目经理。民权法案第六章歧视投诉表格可通过联系以下人员获得：

City of Chandler Title VI Program Manager: Dan Haskins
Public Works & Utilities Department / P O Box 4008, Mail Stop 407, Chandler, AZ 85244-4008
480-782-3335 / Daniel.haskins@chandleraz.gov

Rev 2022-09-12

**FHWA 1273 (also known as the “Pink Sheets”) (14 Page Document)
SHOWN HERE IS ONLY THE FIRST PAGE OF THE FOURTEEN (14) PAGE DOCUMENT FOR
REFERENCE. ALL PAGES MUST BE AVAILABLE ON THE JOBSITE POSTERS BOARD. MUST USE
THE CURRENT REVISION DATED 10-23-2023**

FHWA-1273 – Revised October 23, 2023

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

END OF Jobsite Poster Description for the FHWA 1273 (shown here, Pg 1 of the 14 Page Document)

DAVIS BACON WAGE DECISION EXAMPLE

PICTURED HERE IS ONLY THE FIRST TWO PAGES (Page 1&2) OF A DAVIS BACON WAGE DECISION FOR REFERENCE ONLY. CONTRACTOR REQUIRED TO DISPLAY/PROVIDE THE ENTIRE DAVIS BACON WAGE DECISION THAT IS IN THE CONTRACT FOR THIS PROJECT ON THE JOBSITE POSTERS BOARD. **note: City of Chandler recommends maintaining the last blank page of the Davis Bacon Wage Decision to post any additional added classifications that occur during the course of the project.

"General Decision Number: AZ20240008 01/19/2024
Superseded General Decision Number: AZ20230008
State: Arizona
Construction Type: Highway
Counties: Coconino, Maricopa, Mohave, Pima, Pinal, Yavapai and Yuma Counties in Arizona.

Table with 2 columns: Rates, Fringes. Row 1: CARPENTER (Including Cement Form Work) \$ 34.50, 14.17. Row 2: ENGI0428-001 06/01/2023

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

Table with 2 columns: Rates, Fringes. Row 1: POWER EQUIPMENT OPERATOR Group 1 \$ 31.69, 13.52. Row 2: Group 2 \$ 34.96, 13.52. Row 3: Group 3 \$ 36.04, 13.52. Row 4: Group 4 \$ 37.07, 13.52.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: A-frame boom truck, air compressor, Beltcrete, boring bridge and texture, brakeman, concrete mixer (skip type), conductor, conveyor, cross timing and pipe float, curing machine, dinky (under 20 tons), elevator hoist (Husky and similar), firemen, forklift, generator (all), handler, highline cableway signalman, hydrographic mulcher, joint inserter, jumbo finishing machine, Kolman belt loader, machine conveyor, multiple power concrete saw, pavement breaker, power grizzly, pressure grout machine, pump, self-propelled chip spreading machine, slurry seal machine (Moto paver driver), small self-propelled compactor (with blade-backfill, ditch operation), straw blower, tractor (wheel type), tripper, tugger (single drum), welding machine, winch truck

GROUP 2: ALL COUNTIES INCLUDING MARICOPA: Aggregate Plant, Asphalt plant Mixer, Bee Gee, Boring Machine, Concrete Pump, Concrete Mechanical Tamping-Spreading Finishing Machine, Concrete Batch Plant, Concrete Mixer (paving & mobile), Elevating Grader (except as otherwise classified), Field Equipment Serviceman, Locomotive Engineer (including Dinky 20 tons & over), Moto-Paver, Oiler-Driver, Operating Engineer Rigger, Power Jumbo Form Setter, Road Oil Mixing Machine, Self-Propelled Compactor (with blade-grade operation), Slip Form (power driven lifting device for concrete forms), Soil Cement Road Mixing Machine, Pipe-Wrapping & Cleaning Machine (stationary or traveling), Surface Heater & Planer, Trenching Machine, Tugger (2 or more drums).

MARICOPA COUNTY ONLY: Backhoe < 1 cu yd, Motor Grader (rough), Scraper (pneumatic tired), Roller (all types asphalt), Screenshot, Skip Loader (all types 3<6 cu yd), Tractor (dozer, pusher-all).

GROUP 3: ALL COUNTIES INCLUDING MARICOPA: Auto Grade Machine, Barge, Boring Machine (including Mole, Badger & similar type directional/horizontal), Crane (crawler & pneumatic 15>100 tons), Crawler type Tractor with boom attachment & slope bar, Derrick, Gradall, Heavy Duty Mechanic-Welder, Helicopter Hoist or Pilot, Highline Cableway, Mechanical Hoist, Mucking Machine, Overhead Crane, Pile Driver

Table with 2 columns: Conditions, Executive Order details. Row 1: If the contract is entered into on or after January 30, 2022... Executive Order 14026 generally applies to the contract. Row 2: If the contract was awarded on or between January 1, 2015 and January 29, 2022... Executive Order 13658 generally applies to the contract.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number 0 Publication Date 01/05/2024

END OF JOBSITE POSTERS REQUIREMENTS SECTION

13.0

DAVIS BACON WAGE DECISION

Superseded General Decision Number: AZ20230008

State: Arizona

Construction Type: Highway

Counties: Coconino, Maricopa, Mohave, Pima, Pinal, Yavapai and Yuma Counties in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

CARP0408-005 07/01/2023

	Rates	Fringes
CARPENTER (Including Cement Form Work).....	\$ 34.50	14.17

ENGI0428-001 06/01/2023

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1.....	\$ 31.69	13.52
Group 2.....	\$ 34.96	13.52
Group 3.....	\$ 36.04	13.52
Group 4.....	\$ 37.07	13.52

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: A-frame boom truck, air compressor, Beltcrete, boring bridge and texture, brakeman, concrete mixer (skip type), conductor, conveyor, cross timing and pipe float, curing machine, dinky (under 20 tons), elevator hoist (Husky and similar), firemen, forklift, generator (all), handler, highline cableway signalman, hydrographic mulcher, joint inserter, jumbo finishing machine, Kolman belt loader, machine conveyor, multiple power concrete saw, pavement breaker, power grizzly, pressure grout machine, pump, self-propelled chip spreading machine, slurry seal machine (Moto paver driver), small self-propelled compactor (with blade-backfill, ditch operation), straw blower, tractor (wheel type), tripper, tugger (single drum), welding machine, winch truck

GROUP 2:
ALL COUNTIES INCLUDING MARICOPA: Aggregate Plant, Asphalt plant Mixer, Bee Gee, Boring Machine, Concrete Pump, Concrete Mechanical Tamping-Spreading Finishing Machine, Concrete Batch Plant, Concrete Mixer (paving & mobile), Elevating Grader (except as otherwise classified), Field Equipment Serviceman, Locomotive Engineer (including Dinky 20 tons & over), Moto-Paver, Oiler-Driver, Operating Engineer Rigger, Power Jumbo Form Setter, Road Oil Mixing Machine, Self-Propelled Compactor (with blade-grade operation), Slip Form (power driven lifting device for concrete forms), Soil Cement Road Mixing Machine, Pipe-Wrapping & Cleaning Machine (stationary or traveling), Surface Heater & Planer, Trenching Machine, Tugger (2 or more drums).

MARICOPA COUNTY ONLY: Backhoe < 1 cu yd, Motor Grader (rough), Scraper (pneumatic tired), Roller (all types asphalt), Screed, Skip Loader (all types 3<6 cu yd), Tractor (dozer, pusher-all).

GROUP 3:
ALL COUNTIES INCLUDING MARICOPA: Auto Grade Machine, Barge, Boring Machine (including Mole, Badger & similar type directional/horizontal), Crane (crawler & pneumatic 15>100 tons), Crawler type Tractor with boom attachment & slope bar, Derrick, Gradall, Heavy Duty Mechanic-Welder, Helicopter Hoist or Pilot, Highline Cableway, Mechanical Hoist, Mucking Machine, Overhead Crane, Pile Driver

Engineer (portable, stationary or skid), Power Driven Ditch Lining or Ditch Trimming Machine, Remote Control Earth Moving Machine, Slip Form Paving Machine (including Gunnert, Zimmerman & similar types), Tower Crane or similar type.

MARICOPA COUNTY ONLY: Backhoe<10 cu yd, Clamshell < 10 cu yd, Concrete Pump (truck mounted with boom only), Dragline <10 cu yd, Grade Checker, Motor Grader (finish-any type power blade), Shovel < 10 cu yd.

GROUP 4: Backhoe 10 cu yd and over, Clamshell 10 cu yd and over, Crane (pneumatic or crawler 100 tons & over), Dragline 10 cu yd and over, Shovel 10 cu yd and over.

All Operators, Oilers, and Motor Crane Drivers on equipment with Booms, except concrete pumping truck booms, including Jibs, shall receive \$0.01 per hour per foot over 80 ft in addition to regular rate of pay

Premium pay for performing hazardous waste removal \$0.50 per hour over base rate.

 * IRON0075-004 10/01/2023

COCONINO, MARICOPA, MOHAVE, YAVAPAI & YUMA COUNTIES

	Rates	Fringes
Ironworker, Rebar.....	\$ 32.00	18.91

- Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson
- Zone 2: 050 to 100 miles - Add \$4.00
- Zone 3: 100 to 150 miles - Add \$5.00
- Zone 4: 150 miles & over - Add \$6.50

 LAB01184-008 06/01/2023

	Rates	Fringes
Laborers:		
Group 1.....	\$ 24.18	7.59
Group 2.....	\$ 25.82	7.59
Group 3.....	\$ 26.68	7.59
Group 4.....	\$ 27.65	7.59
Group 5.....	\$ 28.75	7.59

LABORERS CLASSIFICATIONS:

GROUP 1: All Counties: Chipper, Rip Rap Stoneman. Pinal County Only: General/Cleanup Laborer. Maricopa County Only: Flagger.

GROUP 2: Asphalt Laborer (Shoveling-excluding Asphalt Raker or Ironer), Bander, Cement Mason Tender, Concrete Mucker, Cutting Torch Operator, Fine Grader, Guinea Chaser, Power Type Concrete Buggy

GROUP 3: Chain Saw, Concrete Small Tools, Concrete Vibrating Machine, Cribber & Shorer (except tunnel), Hydraulic Jacks and similar tools, Operator and Tender of Pneumatic and Electric Tools (not herein separately classified), Pipe Caulker and Back-Up Man-Pipeline, Pipe Wrapper, Pneumatic

Gopher, Pre-Cast Manhole Erector, Rigger and Signal Man-Pipeline

GROUP 4: Air and Water Washout Nozzleman; Bio-Filter, Pressman, Installer, Operator; Scaffold Laborer; Chuck Tender; Concrete Cutting Torch; Gunite; Hand-Guided Trencher; Jackhammer and/or Pavement Breaker; Scaler (using boson's chair or safety belt); Tamper (mechanical all types).

GROUP 5: AC Dumpman, Asbestos Abatement, Asphalt Raker II, Drill Doctor/Air Tool Repairman, Hazardous Waste Removal, Lead Abatement, Lead Pipeman, Process Piping Installer, Scaler (Driller), Pest Technician/Weed Control, Scissor Lift, Hydro Mobile Scaffold Builder.

 PAIN0086-001 04/01/2017

	Rates	Fringes
PAINTER		
PAINTER (Yavapai County only), SAND BLASTER/WATER BLASTER (all Counties).....	\$ 19.58	6.40

ZONE PAY: More than 100 miles from Old Phoenix Courthouse
 \$3.50 additional per hour.

 * SUAZ2009-001 04/20/2009

	Rates	Fringes
CEMENT MASON.....	\$ 19.28	3.99
ELECTRICIAN.....	\$ 22.84	6.48
IRONWORKER (Rebar)		
Pima County.....	\$ 23.17	14.83
Pinal County.....	\$ 20.27	8.35
LABORER		
Asphalt Raker.....	\$ 15.49 **	3.49
Compaction Tool Operator....	\$ 14.59 **	2.91
Concrete Worker.....	\$ 13.55 **	3.20
Concrete/Asphalt Saw.....	\$ 13.95 **	2.58
Driller-Core, diamond, wagon, air track.....	\$ 16.94 **	3.12
Dumpman Spotter.....	\$ 14.99 **	3.16
Fence Builder.....	\$ 13.28 **	2.99
Flagger		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 12.35 **	1.59
Formsetter.....	\$ 16.09 **	3.97
General/Cleanup Laborer		
Coconino, Maricopa, Mohave, Pima, Yavapai & Yuma.....	\$ 14.54 **	3.49
Grade Setter (Pipeline)....	\$ 17.83	5.45
Guard Rail Installer.....	\$ 13.28 **	2.99
Landscape Laborer.....	\$ 11.39 **	
Landscape Sprinkler		
Installer.....	\$ 15.27 **	
Pipelayer.....	\$ 14.81 **	2.96

Powderman, Hydrasonic.....\$ 16.39 **	2.58
OPERATOR: Power Equipment	
Asphalt Laydown Machine.....\$ 21.19	6.05
Backhoe < 1 cu yd	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 17.37	3.85
Backhoe < 10 cu yd	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 18.72	3.59
Clamshell < 10 cu yd	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 18.72	3.59
Concrete Pump (Truck	
Mounted with boom only)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 19.92	7.10
Crane (under 15 tons).....\$ 21.35	7.36
Dragline (up to 10 cu yd)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 18.72	3.59
Drilling Machine	
(including Water Wells).....\$ 20.58	5.65
Grade Checker	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 16.04 **	3.68
Hydrographic Seeder.....\$ 15.88 **	7.67
Mass Excavator.....\$ 20.97	4.28
Milling Machine/Rotomill....\$ 21.42	7.45
Motor Grader (Finish-any	
type power blade)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 21.92	4.66
Motor Grader (Rough)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 20.07	4.13
Oiler.....\$ 18.15	8.24
Power Sweeper.....\$ 16.76 **	4.44
Roller (all types Asphalt)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 18.27	3.99
Roller (excluding asphalt)..\$ 15.65 **	3.32
Scraper (pneumatic tired)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 17.69	3.45
Screed	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 17.54	3.72
Shovel < 10 cu yd	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 18.72	3.59
Skip Loader (all types <3	
cu yd).....\$ 18.28	5.30
Skip Loader (all types 3 <	
6 cu yd)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 18.64	4.86
Skip Loader (all types 6 <	
10 cu yd).....\$ 20.15	4.52
Tractor (dozer, pusher -	
all)	
Coconino, Mohave, Pima,	
Pinal, Yavapai & Yuma.....\$ 17.26	2.65

PAINTER

Coconino, Maricopa,
Mohave, Pima, Pinal & Yuma..\$ 15.57 ** 3.92

TRUCK DRIVER

2 or 3 Axle Dump or Flatrack.....	\$ 16.27 **	3.30
5 Axle Dump or Flatrack.....	\$ 13.97 **	2.89
6 Axle Dump or Flatrack (< 16 cu yd).....	\$ 17.79	6.42
Belly Dump.....	\$ 14.67 **	
Oil Tanker Bootman.....	\$ 22.03	
Self-Propelled Street Sweeper.....	\$ 13.11 **	5.48
Water Truck 2500 < 3900 gallons.....	\$ 18.14	4.55
Water Truck 3900 gallons and over.....	\$ 15.92 **	3.33
Water Truck under 2500 gallons.....	\$ 15.94 **	4.16

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====
** Workers in this classification may be entitled to a higher
minimum wage under Executive Order 14026 (\$17.20) or 13658
(\$12.90). Please see the Note at the top of the wage
determination for more information. Please also note that the
minimum wage requirements of Executive Order 14026 are not
currently being enforced as to any contract or subcontract to
which the states of Texas, Louisiana, or Mississippi, including
their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at
<https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the

cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====
END OF GENERAL DECISION"

14.0
DBE FORMS
AND
SUBMITTAL INSTRUCTIONS

-DBE Instructions

-Bidders-Proposers List Guide

-DBE Forms 3102C, 3106C, 3105C, 3108C, 3109C 3114C 3110C 103C

*****See Instructions: Documents that must be submitted by 4pm the 5th day from bid opening date. Day 1 is the day after bid due date.***

DBE Forms Instructions

IMPORTANT GUIDE NOTES:

NOTE A: ALL BIDDERS WHO WANT TO BE CONSIDERED MUST FOLLOW INSTRUCTIONS ITEMS NO. 1 and 2 BELOW. FAILURE TO SUBMIT THE REQUIRED DOCUMENTATION BY THE STATED TIME AND IN THE MANNER HEREIN SPECIFIED SHALL BE CAUSE FOR THE BIDDER TO BE DEEMED NONRESPONSIVE.

NOTE B: FAILURE TO BE REGISTERED IN THE UTRACS SYSTEM SHALL BE CAUSE FOR THE BIDDERS TO BE DEEMED NONRESPONSIVE.

NOTE C: USE FORMS PROVIDED IN THE BID PACKET. DO NOT USE FORMS FOUND ON ADOT WEBSITE AND DO NOT USE PREVIOUSLY USED CITY OF CHANDLER FORMS. (THIS IS SPECIFIC IN THE DBE EPRISE).

INSTRUCTIONS

1. SUBMIT WITH BID:

-DBE BECO Form 3102C – DBE Goal Assurance (**SUBMIT WITH BID**)

2. SUBMIT NO LATER THAN: 4PM OF THE 5TH CALENDAR DAY POST BID OPENING DATE

-DBE BECO Form 3105C – DBE Intended Participation Affidavit & Confirmation (Individual)

-DBE BECO Form 3106C – DBE Intended Participation Affidavit Summary (Prime)

-DBE BECO Bidders/Proposers List Submittal Email Confirmation

** -DBE BECO Form 103C - GFE Guide (Good Faith Efforts) ** (***ONLY IF APPLICABLE***)

Instructions for these forms: DUE by 4pm of the 5th Calendar Day Post Bid Opening Date:

- a. Per ADOT, **there can be no errors on these forms or your bid will be considered non-responsive**
- b. If you submit these DBE forms (Form 3105C, 3106C, 103C), and then determine you made an error, you are allowed to re-submit these DBE documents (Form 3105C, 3106C, 103C) as long as it is within the 5 day submittal period (no later than 4pm by the 5th day post bid opening day).

Important: Only your most recent/last submittal will be accepted and considered.

Important: If resubmitting, submit everything required during this 5 day period, not just the corrected item.

- c. If you have questions about these forms:
 - i. Questions allowed **ONLY AFTER** bid opening day – during the 5 Calendar Day DBE submittal period.
 - ii. Once you submit this packet, you are not allowed to ask questions. You may **ONLY** ask questions **IF YOU HAVE NOT SUBMITTED THESE FORMS FOR THE FIRST TIME YET**. Once you submit these forms, even if you want to resubmit, you may not ask questions in order to revise.
 - iii. Questions can be submitted by calling Janece Ray-Federal Compliance at 480-782-3331 or email question(s) to cp.fedfund@chandleraz.gov.
- d. Submit Documents by Email to: cp.fedfund@chandleraz.gov

3. FORMS THAT WILL BE INCLUDED IN EXECUTED CONTRACT (NOT DUE WITH ANY BID SUBMITTALS)

- DBE BECO Form 3108C – DBE Termination Substitution Request

- DBE BECO Form 3109C – Joint Check Agreement Request

- DBE BECO Form 3114C – Joint Check Agreement

- DBE BECO Form 3110C – DBE Certification of Final Payment

BIDDERS/PROPOSERS LIST

FEDERAL DOCUMENT REQUIRED: [Email Verification Print Out](#)

Email Verification Print Out Received from Utracs/AzDOT.gov confirms your electronic submittal Of Bidders/Proposers List. The email confirmation should be a submitted document. Do not forward the email.

WHERE TO CREATE AND SUBMIT BIDDERS/PROPOSERS LIST: <https://utracs.azdot.gov/BiddersListInfo/>

WHERE TO CALL FOR QUESTIONS (SHOWN ON WEBSITE): 602-712-7761

AZ UTRACS Arizona's Transportation Business Portal

Search (DBE) Firm Directory | Log in

Home Register / Renew Contract Compliance Tools / Resources

Primes – Bidders/Proposers List

Primes: Use AZ UTRACS to create contract-specific Bidder/Proposer List.

[START YOUR LIST](#)

Quick Links

- Log in to the ADOT DBE and OJT Online Reporting System (DOORS), formerly known as the ADOT DBE System
- Log in to ADOT LPA DBE System
- Log in to AZ UTRACS registration
- Log in to Online Bidders/Proposers List
- Log in to ADOT DBE Certification System
- Log in to PHX DBE Certification System
- Log in to Tucson DBE Certification System
- Log in to the ADOT Certified Payroll System
- Log in to AZ Procurement Portal(APP)

Who Are You? DBEs ACDBEs SBCs Sub's Primes ADOT LPAs

Who Are You? (who who, who who)

AZ UTRACS Transportation Business Portal provides different resources for different types of firms. The tabs above organize available content differently for each group, to ensure easy accessibility. Choose the appropriate tab that best represents your firm or group.

[View all tasks by user role](#)

Bidders/Proposers List

[Start or Manage a Bidders/Proposers List](#)

In compliance with 49 CFR Part 26.11, ADOT requires contractors and consultants submitting a bid, proposal, or statement of qualifications to work on a federally funded transportation project, to provide ADOT with a list of every firm who expressed interest in or submitted a bid or proposal to work on the project. Each project's advertisement or solicitation will provide the specifics for meeting this requirement. Any firm being awarded work as a prime or sub, MUST be AZ UTRACS registered.

The AZ UTRACS system has an online Bidders/Proposers List application to assist firms in quickly and efficiently providing this information. Contractors and Consultants should encourage any firm who contacts them about a project to register in the AZ UTRACS Registration System. The Bidders/Proposers List application allows any AZ UTRACS registered firm to be added with just one click. Firms will have to manually enter information for any firm not AZ UTRACS registered.

A Bidders/Proposers List may be submitted by any employee in a firm, as long as the firm has an Active AZ UTRACS Registration.* See right-column box for more information.

Once access has been provided, a user can log into the AZ UTRACS system, quickly create a new Bidder's/Proposer's List, and submit it. The list can also be saved and submitted at a later time, so a user can add to it over time as they work with various firms. The system also boasts the ability to copy from an existing project list, to help save time when firms work with the same group of firms for a different project.

Once a list is submitted, the creator of the list will receive email verification and should follow any additional instructions in the specific advertisement /solicitation to ensure the requirement to submit a Bidders/Proposers list requirement is met. For help with this process, contact the Business Engagement and Compliance Office by email at azutracs-support@azdot.gov or call 802-712-7781.

AZ UTRACS - Login

Email

Password

[LOGIN](#) Go to our [Log In](#) page to create a new login and password

*** Access to Bidders List**

The AZ UTRACS Registration process requires a firm to establish a Primary and Secondary contact. These two individuals may provide access for other firm employees, as needed. Your [Firm profile](#) will show the Primary and Secondary contacts. Note: If you are the primary or secondary contact, you may [grant access](#) to other firm employees any time, as needed.

- [Search for Firm's profile](#)
- [Start a Bidders List](#)

Firms that do not have an Active AZ UTRACS Registration, may NOT submit a Bidder or Proposer List, until an active AZ UTRACS Registration is established.

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
GOAL ASSURANCE**

The undersigned, fully cognizant of the requirements and of the goal established, hereby certifies that in the preparation of this bid for federal aid project:

ADOT TRACS No: _____

Agency Project No: _____

Project Name: _____

(CHECK ONE)

The bidder has met the established DBE goal and arrangements with certified DBEs have been made prior to the submission of the bid.

OR

The bidder has been unable to meet the established DBE goal prior to the submission of the bid and has made good faith efforts to do so.

THIS CERTIFICATE MAY NOT BE REVISED OR CORRECTED AFTER SUBMISSION OF THE BID.

If the bidder certifies that it has met the goal, the bidder cannot change its decision after submission of the bid and submit documentation of a good faith effort. If the bidder certifies that it has been unable to meet the goal and has made a good faith effort, the bidder cannot change its position after the submission of the bid and claim to have met or be able to meet the established goal.

In accordance with the DBE Special Provisions, the bidder shall specify its DBE participation on the "DBE Intended Participation Affidavit", or provide documentation of its good faith efforts, by 4:00 p.m. on the fifth calendar day following the bid opening. The bidder shall obtain the required affidavit from the _____ City of Chandler _____

Insert Agency Name
_____ City of Chandler _____

Print Name of Firm

Print Name of Authorized Officer of Firm

Signature of Authorized Officer of Firm

Title

Date



CITY OF CHANDLER

Clear Form

CONSTRUCTION
DISADVANTAGED BUSINESS ENTERPRISE (DBE)
Intended Participation Affidavit

Refer to Instructions on Page 2

Prime Contractor: Project Name:

TRACS No(s): (ADOT no) Project/Federal No.:

DBE Firm: AZ UTRACS Registration No.:

Select: Subcontractor Trucker Broker (Fees/Commission) Supplier (60% DBE Credit) Manufacturer

1. The undersigned is prepared to perform the following scope(s) of work on the above referenced project.

Table with 7 columns: NAICS Code(s), Bid Item No., Partial Yes/No, Description / Scope of Work, Quantity, Unit Price, Total. Title: UNIT PRICE OR LUMP SUM BID

2. (Trucking) If there is any Trucking in the work listed above, complete the following: Minimum Contract Amount:

Table with 4 columns: DBE firm owns total # Trucks, Project Use, # of Trucks, Dollar Amount. Rows include DBE owned trucks, DBE leased trucks, non-DBE leased w/DBE driver, non-DBE leased w/o DBE driver.

3. (Brokerage) The undersigned affirms that the amount of fees and commissions for work quoted above are as follows:

Total Min Contract Amount \$ Fees/Commissions & %

4. The undersigned will sublet and/or award of work bid to a non-DBE firm.

5. The undersigned will sublet and/or award of work to another certified DBE firm.

Confirmation of Participation

By signature below, the undersigned agrees to enter into a formal agreement/subcontract for the work cited herein should the prime contractor receive award of this contract from the Purchaser.

I, confirm that (Name of DBE firm)

will be participating in the above project.

The DBE firm will be performing the scope as describe above for: (Total DBE Credit Dollar Value)

(Authorized DBE firm officer, Signature) (Date)



City of Chandler
DISADVANTAGED BUSINESS ENTERPRISE (DBE)
TERMINATION/SUBSTITUTION/REDUCTION (TSR) REQUEST

Contract/TRACS No.: (ADOT No.) _____ Federal #: _____ Task Order: _____
 (City Project No.)

Prime: _____ DBE Firm: _____

Requestor: _____ Email: _____ Phone Number: _____

Type of request: Termination Substitution Reduction

1. Is this request due to an ADOT reduction of work?

- Yes, explain the change or reduction impact on DBE participation
- No, select below the fact(s) and the reason(s) for the request (see attached instructions).

- DBE:
- Fails or refuses to execute written contract
 - Fails or refuses to perform work in accordance with normal industry standards
 - Fails or refuses to meet prime contractor's reasonable, nondiscriminatory bond requirements
 - Becomes bankrupt, insolvent or exhibits credit unworthiness
 - Is ineligible to work because of suspension or debarment proceedings
 - Is not a responsible contractor
 - Voluntarily withdraws from the project and provides to the Department written notice of its withdrawal
 - Is ineligible to receive DBE credit for the type of work required
 - Owner dies or becomes disabled resulting in inability to complete its work on the contract
 - Other documented good cause (Attach documentation)

Attach a brief statement of facts describing the situation and any supporting documentation to substantiate selection above

2. Date determined the DBE is unwilling, unable or ineligible to perform: _____

3. Date of Written Notice to DBE: _____ *Attach notice with this request, along with the DBE response*

4. a. Original DBE affidavit amount: \$ _____ **b. Amount of work completed to date: \$** _____
c. Remaining DBE amount: \$ _____

For DBE Substitution only, answer questions 5 thru 7:

5. Proposed DBE Name(s): _____

6. Proposed DBE dollar amount to be substituted: \$ _____

7. Projected date for substitute DBE to commence work: _____

Good Faith Effort Documentation to be submitted with this request or within 7 calendar days from approval of this request:

- DBE Affidavits and/or
- Other documentation to substantiate efforts made to replace the same amount of DBE work

All signatures must be obtained before request is submitted.

Prime Contractor Signature **Date:** _____

Original DBE Subcontractor Signature **Date:** _____

Agency RE/PM Signature **Date:** _____

FOR BECO USE ONLY	
Request is:	Approved <input type="checkbox"/> Not Approved <input type="checkbox"/>
BECO Representative:	_____
Signature:	_____
Date:	_____



**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
Joint Check Request**

TRACS No(s): _____ Project/Contract No.: _____
Prime Name: _____ AZ UTRACS Registration No.: _____
DBE Firm: _____ AZ UTRACS Registration No.: _____
Material Supplier: _____ AZ UTRACS Registration No.: _____
Requestor: _____ Email: _____ Phone Number: _____

The Agency will closely monitor the use of joint checks. To receive DBE credit for performing a commercially useful function with respect to obtaining materials and supplies, a DBE must "be responsible for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and paying for the material itself." Only when a DBE meets all of these requirements should credit be counted for the procurement of the items by the DBE. Please refer to the DBE Special Provisions Section 23 Joint Checks for qualifying conditions. If proper procedures are not followed or ADOT determines that the arrangement results in lack of independence for the DBE involved, no credit for the DBE's participation as it relates to the material cost will be counted toward the contract goal requirement.

I have read and understand the above information and have attached a copy of the Joint Check Agreement relating to this request. I hereby acknowledge that the information provided on this form is true and accurate.

_____	_____	_____
Authorized DBE Representative (print name)	Signature	Date
_____	_____	_____
Authorized Prime Representative (print name)	Signature	Date
_____	_____	_____
Authorized Material Supplier Representative (print name)	Signature	Date

FOR AGENCY/BECO USE ONLY Request is:	
Approved	Not Approved
Agency Representative:	_____
Signature:	_____
Date:	_____
BECO Representative:	_____
Signature:	_____
Date:	_____



JOINT CHECK AGREEMENT

ADOT TRACS NO : _____ Project/ Contract No. : _____

1. _____ is the general contractor on the project known as _____ ("Project"), and which is being constructed for _____ ("Owner").
2. Contractor has entered a Subcontract agreement dated _____ day of _____, _____ with _____ ("Subcontractor") for the performance of the following work on the project: _____.
3. _____ ("Vendor") is supplying the following materials to Subcontractor pursuant to a Purchase order or other contract dated _____ day of _____, _____ and for use in Connection with Subcontractor's work on the Project: _____.
4. Subcontractor hereby requests Contractor to issue checks jointly payable to Subcontractor and Vendor for those amounts sought in Subcontractor's Payment Application, and reflecting the value of material furnished by Vendor to Subcontractor and for use on the project.
5. Contractor's agreement to issue checks to conditioned upon the following:
 - 5.1. Subcontractor's submittal of an Application for Payment, consistent with the terms and conditions of the Subcontract, seeking payment of amounts owed by Subcontractor to Vendor and requesting the issuance of a check for such amount made jointly payable to Subcontractor or Vendor.
 - 5.2. Contractor's approval of the Subcontractor's Payment Application.
 - 5.3. Contractor's receipt of funds from the Owner to pay the referenced Application for Payment, including that portion sought to pay for the materials furnished by the Vendor.
 - 5.4. The issuance by Vendor to Subcontractor of releases waiving any right to assert claims or liens arising out of the materials for which the joint check is requested. The occurrence of each of the foregoing shall constitute a condition precedent to Contractor's obligation to issue such checks.
 - 5.5. Nothing contained herein shall relieve Subcontractor of its primary liability to Vendor for payment of amounts owed Vendor for materials furnished for use on the Project, and except as expressly stated herein, Contractor has no liability of any kind to Vendor.
6. All payments made pursuant to this Agreement shall constitute credits against the Subcontract Amount.
7. The total amount of all joint checks to be issued under this Agreement shall not exceed \$ _____ and once said amount is reached, Contractor shall be under no obligation to issue any additional joint checks hereunder.
8. This Agreement applies only to the above referenced Project.
9. Checks issued hereunder shall be furnished to Subcontractor for its endorsement and distribution to vendor

SO AGREED this _____ day of _____, 20_____.

Signatures on Notarial certificate of agreement on page 2.



JOINT CHECK AGREEMENT

ADOT TRACS NO: _____ Project/ Contract No: _____

Authorized Prime Representative

Name _____ Title _____

Signature _____ Date _____

Authorized Subcontractor Representative

Name _____ Title _____

Signature _____ Date _____

Authorized Material Supplier Representative

Name _____ Title _____

Signature _____ Date _____

State of Arizona

County of _____

Subscribed and sworn (or affirmed) before me on this _____ day of _____, 20____.
(Day) (Month) (Year)

by _____,
(Name of Signers)

(Notary Seal)

Notary Public Signature



CERTIFICATION OF FINAL DISADVANTAGED BUSINESS ENTERPRISE (DBE) PAYMENTS

Construction Contracts

(Submit one form for each DBE involved in the contract)

The undersigned contractor on **Agency Project No:** _____ **ADOT TRACS No:** _____ hereby, certifies that full payment was made, to the firm indicated for material and/or work performed under this project's contract as follows:

DBE FIRM AZ UTRACS Vendor Registration # _____

Name of DBE Firm _____ was paid the amount of _____

This certificate is made under Federal and State Laws concerning false statement. Supporting documentation for this payment is subject to audit and should be retained for a minimum of three years from project acceptance date. In the event the DBE was not paid in accordance with affidavits submitted by the prime contractor, all documentation supporting the contractor's position should be submitted.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS THAT THE STATEMENT MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor Company Name: _____

Check One: Prime Contractor Subcontractor

Name: _____ **Title:** _____

Signature: _____

Date: _____

The undersigned subcontractor/supplier/manufacturer for the above named project hereby certified that payments were received and/or justification by contractor is correct.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS THAT THE STATEMENT MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DBE Firm Name: _____

Check One: Subcontractor/Supplier/Manufacturer Lower-tier Subcontractor/Supplier/Manufacturer

Name: _____ **Title:** _____

Signature: _____

Date: _____

ARIZONA DEPARTMENT OF TRANSPORTATION

BUSINESS ENGAGEMENT AND COMPLIANCE OFFICE

**Disadvantaged Business Enterprises (DBE)
Good Faith Efforts (GFE) Guide
For Construction Projects**

For use in bidding federally funded Arizona Department of Transportation (ADOT) projects subject to the Disadvantaged Business Enterprises (DBE) Program.

The purpose of the GFE Guide is to help Bidders understand the type of documentation that is required if the Bidder has indicated on the *DBE Assurance Form* that the goal will not be met. GFE documentation must be submitted within five (5) calendar days following the bid opening. Failure to submit good faith effort documentation within the required time period will render the bid non-responsive.

For questions about this guide or any components of the DBE Good Faith Effort, please contact the ADOT Business Engagement and Compliance Office (BECO) at (602) 712-7761 or ContractorCompliance@azdot.gov.

DISADVANTAGED BUSINESS ENTERPRISES GFE GUIDE

TABLE OF CONTENTS

SECTION 1.0 PURPOSE	3
1.1 CRITICAL INITIAL GFE REQUIREMENTS	3
1.2 GFE DOCUMENTATION REVIEW	3
SECTION 2.0 GOOD FAITH EFFORT SUBMITTAL	4
2.1 GFE SUBMISSION	4
2.2 GFE LETTER	4
SECTION 3.0 DBE GOAL NOTICE	5
SECTION 4.0 DBE ASSURANCE CERTIFICATE	6
4.01 EXHIBIT A	6
SECTION 5.0 GOOD FAITH EFFORTS	
5.1 CONTACT BECO IF UNABLE TO MEET DBE GOAL	7
5.2 SOLICITING THROUGH ALL REASONABLE AND AVAILABLE MEANS	8
5.3 SELECTING PORTIONS OF WORK	10
5.4 PROVIDE INTERESTED DBES WITH PROJECT INFORMATION	11
5.5 NEGOTIATE IN GOOD FAITH WITH INTERESTED DBES	12
5.6 HAVING SOUND REASON FOR REJECTING DBES	15
5.7 ASSISTING INTERESTED DBES – BONDING, CREDIT, INSURANCE	16
5.8 ASSISTING INTERESTED DBES – EQUIPMENT, SUPPLIES, MATERIALS, RELATED SERVICES	17
5.9 MINORITY/WOMEN COMMUNITY ORGANIZATIONS	18
SECTION 6.0 APPENDIX A TO PART 26 – GUIDANCE CONCERNING GFEs	22

SECTION 1.0 PURPOSE

This guide contains suggested information and forms bidders can use to help prepare good faith effort documentation. Good faith efforts must be performed well in advance of bid opening.

1.1 CRITICAL INITIAL GFE REQUIREMENTS

1. **CONTACT BECO FOR ASSISTANCE** - As soon as the bidder is aware it is unable to meet the goal, the bidder must contact BECO for assistance. Any solicitations made to interested DBEs must be done no less than ten (10) calendar days prior to bid opening.
2. **DO NOT CHANGE POSITION AFTER BID PROPOSAL** – If the bidder certifies that it has been unable to meet the goal and has made a good faith effort, the bidder cannot change its position after submission of the bid and claim to have met the established goal.

As specified in *Section 13.0 Submission with Bids* of the Disadvantaged Business Enterprises (DBE), Contract Special Provisions (EPRISE, 07/01/16), all Bidders shall submit information to demonstrate that good faith efforts to meet the DBE goal has been made if their *Disadvantaged Business Enterprise Assurances* certificate (Section 4.01 Exhibit A) indicates that the DBE goal will not be met.

1.2 GFE DOCUMENTATION REVIEW

All Bidders are encouraged to consider this GFE Guide. Reviews of GFE documentation will focus on items identified in Section 5.0 of this guide. The items in Section 5.0 are not intended to be an exclusive or exhaustive checklist. Other factors or types of efforts documented shall be relevant in appropriate cases.

SECTION 2.0 GOOD FAITH EFFORT SUBMITTAL

2.1 GFE SUBMISSION

The bidder may submit its documentation one of three ways:

1. Hard copy to: Business Engagement & Compliance Office
1801 W. Jefferson St. Ste. 101 (MD 154A)
Phoenix, AZ 85007
2. Fax to: (602) 712-8429
3. Email to: contractorcompliance@azdot.gov – Please be sure that all emails reach its destination by 4:00 PM of the final submission day (usually 5 days after bid opening).
Emailed documentation received after 4:00 PM will not be included in the GFE review.

2.2 GFE LETTER

The letter should include the following information:

- Project Name
- Project TRACS Number
- Federal Project Number
- Name of person submitting documentation
- Phone Number
- Signature
- Company Name
- Street Address
- City, State, Zip Code
- Telephone number
- Fax number
- Email address
- Contact Person
- Contact Person's Telephone Number

The letter should include an overview of good faith efforts and any necessary explanations of the documentation submitted.

SECTION 3.0 DBE GOAL NOTICE

3.01 NOTICE TO BIDDERS

The DBE goal is project-specific and is listed in the “Notice to Bidders.”

In the Notice to Bidders:

THIS IS A FEDERAL AID CONTRACT. THE DISADVANTAGED BUSINESS ENTERPRISE (DBE) CONTRACT GOAL IS [X.XX %]. YOU MUST MEET THIS DBE GOAL AND/OR PROVIDE ADEQUATE GOOD FAITH EFFORT DOCUMENTATION AS OUTLINED IN THESE SPECIAL PROVISIONS. TO COMPLY WITH ADOT’S DBE PROGRAM GOOD FAITH EFFORT, THE BIDDER MUST TAKE CERTAIN ACTIONS A MINIMUM OF FIFTEEN (15) DAYS PRIOR TO BID OPENING.

All Good Faith Effort documentation must be received by BECO no later than 4:00 P.M. on the seventh calendar day following the bid opening.

Failure to submit good faith effort documentation within the required time period will render the bid nonresponsive. Refer for specific bid requirements to the Disadvantaged Business Enterprises (DBE), Contract Special Provisions (EPRISE, 07/01/16)

For Good Faith Effort assistance, please contact BECO at (602) 712-7761 or email ContractorCompliance@azdot.gov.

SECTION 4.0 DBE ASSURANCE CERTIFICATE

4.01 EXHIBIT A

This form is included in the electronic bid documents and shall be completed and submitted as part of the bid submittal. The form is used to identify if a Bidder can or cannot meet the DBE goal required on the contract. Bids submitted with altered, incomplete or unsigned form will be considered nonresponsive.

**DISADVANTAGED BUSINESS ENTERPRISE
ASSURANCE**

The undersigned, fully cognizant of the requirements and of the goal established, hereby certifies that in the preparation of this bid for federal aid project

Project No: _____

Project Name: _____

Exhibit A

(CHECK ONE)

_____ The established goal for DBE participation will be met and agreements have been made with certified DBEs, or

_____ The bidder has been unable to meet the goal prior to the submission of the bid and has made good faith efforts to do so.

THIS AFFIDAVIT MAY NOT BE REVISED OR CORRECTED AFTER SUBMISSION OF THE BID.

In accordance with the Special Provisions, the bidder shall specify its DBE participation on the "DBE Intended Participation Affidavit", or provide documentation of its good faith efforts, by 4:00 p.m. on the fifth working day following the bid opening. The apparent low bidder shall obtain the required affidavit from the Business Engagement & Compliance Office , 1135 N. 22nd Avenue (second floor), Phoenix, AZ, 85009, following the opening of bids.

Print Name of Firm

Print Name of Authorized Officer of Firm

Signature of Authorized Officer of Firm

Title

SECTION 5.0 GOOD FAITH EFFORTS

GFE documentation, identified herein, to be provided by Bidders as part of Good Faith Effort will assist ADOT and its Subrecipients/Subgrantees/Local Public Agencies (LPAs) in determining whether the Bidder has performed its due diligence, took all necessary and reasonable steps to secure DBE participation for the contract pursuant to DBE Contract Special Provisions (EPRISE 07/01/16), *Section 15.0 Documented Good Faith Effort* and [Appendix A to Part 26](#). BECO will review the GFE documentation and will recommend to the State Engineer whether the Bidder has made satisfactory good faith efforts to secure sufficient DBE participation to meet the contract goal. The Business Engagement and Compliance Office will make the final determination of Bidder’s meeting (or not meeting) the GFE requirements.

The burden of proof rests with the Bidder.

The following sections are a restatement of the Good Faith Efforts outlined in *Section 15.0 Documented Good Faith Effort* of the DBE Special Provisions (EPRISE 07/01/16). Additional guidance over what is outlined in the provisions is provided herein, along with documentation examples.

The types of actions Bidders take and the documentation necessary to establish good faith efforts to meet the DBE goal can include, but not limited, to the following activities (Sections 5.01, 5.02, etc.).

5.1 CONTACT BECO IF UNABLE TO MEET DBE GOAL

Purpose: To communicate with BECO prior to the submission of bids, either by e-mail, telephone, or any other communication avenue to inform BECO of the firm’s difficulty in meeting the DBE goals on a given project, and request assistance.

Action: Contact BECO at the first indication of not being able to locate DBEs for a specific project. The bidder must document its contact with BECO, indicate the type of contact, the date and time of the contact, the name of the person(s) contacted, and any details related to the communication. The contact must be made in sufficient time before bid submission to allow BECO to provide effective assistance.

The bidder will not be considered to have made good faith efforts if the bidder failed to contact BECO.

Document and retain all communications (e.g., phone, fax, email, mail) conducted with BECO staff.

SECTION 5.01	CONTACT BECO	EXAMPLE
--------------	--------------	---------

Occurrence	Date	BECO Staff Name or Email	Bidder’s Contact Name	Comment
1.				
2.				
3.				

5.2 SOLICIT THROUGH ALL REASONABLE AND AVAILABLE MEANS

Purpose: To identify all reasonable and available activities the Bidder performed to solicit the interest of all certified DBEs who have the capacity and ability to perform work on the project.

Action: Identify and list all activities the Bidder engaged in to solicit DBEs using all reasonable and available means.

Bidder’s GFE Documentation:

- 1) Provide a list of activities performed to solicit DBEs.
- 2) Identify and **provide documentation:**
 - a. Activity undertaken, such as:
 - advertising – copies or print screens of online project advertisement (See *Section 5.03 Selecting Portions of Work* for example of an advertisement),
 - pre-bid meeting sign-in sheets,
 - business matchmaking meetings or events – proof of attendance,
 - written notice(s) sent – letters, fax or emails to DBEs,
 - any other market research conducted to identify and solicit DBE contractors and suppliers
 - b. Date action was taken;
 - c. Name of DBEs that showed interest;
 - d. Date of Bidder’s follow-up with the interested DBEs

SECTION 5.02	SOLICITING	EXAMPLES
--------------	------------	----------

Bidder Activity (Advertising, Pre-bid meeting, business event, written notice, etc.)	Date	Name of DBE(s) Interested	Date Bidder Follow-up

Example of Written Notice with Fax Transmittal

HP LaserJet 3100
Printer/Fax/Copier/Scanner

SEND CONFIRMATION REPORT for
ABC Construction Company
623-321-7655
January – 29 – 13 2:34 PM

Job	Start Time	Usage	Phone Number or ID	TYPE	Pages	Mode	Status
542	1/29 2:34pm	0'35"	19257484577	Send	1/1	EC144	Complete

ABC Construction Company
123 Main Street
Anytown, CA 98765
925-321-7655 Fax: 925-321-7655

abconstruction@aol.com

INVITATION TO BID

January 29, 2013

The Electric Shop
1210 Cedar Avenue
Pleasanton, CA 94588

Telephone: 925-748-1327
Fax: 925-748-4577

ABC Construction Company is seeking quotes from qualified MBE/WBE/SBE/OBE/LBE/DVBE businesses and invites your bid/quote on the following listed project/contract:

Project: El Sobrante Area Overlays/Pavement Replacement, El Sobrante, CA
Approx. Value: \$2,415,218
No. of Working Days: 60
Owner: Contra Costa County Bids Due: 2-10-13 @ 2 pm

Seeking all trades including but not limited to: earthwork, asphalt, concrete, rebar, fencing, electrical, fire protect, lath/plaster/drywall, structural steel, mechanical, sheet metal, insulation and other related trades.

We are an equal opportunity employer and intend to seriously negotiate with qualified DBEs for project participation. For assistance in obtaining bonds, lines of credit, and/or insurance please contact Roger Smith. Plans, specifications and requirements for the project are available for review at our office or at the Contra Costa County Public Works Dept. 255 Glacier Drive, Martinez, CA, 94553 and are available online at www.cccounty.us/pwprojects. Please contact us at the above listed number for further information regarding bidding on this project.

Please fax your response to: Rodger Smith at 925-321-7655

We will be bidding Yes _____ No _____

Sincerely,

Rodger Smith
ABC Construction Company

5.3 SELECTING PORTIONS OF WORK

Purpose: To ensure work items are broke out into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

Action: Identify economically feasible work units to be performed by DBEs

Bidder’s GFE Documentation

- 1) Identify documentation of the following:
 - a. Activity undertaken, such as:
 - List of work items needed to be performed,
 - Breaking large work tasks into partial work items (smaller tasks or quantities),
 - Flexible time frames for performance and delivery schedules

SECTION 5.03	SELECTING PORTIONS OF WORK	EXAMPLE
--------------	----------------------------	---------

Posted in Arizona Builder Exchange website on January 15, 2014

ABC Construction Company is requesting sub-bids from qualified DBE subcontractors, suppliers, manufacturers & truckers for: ADOT Phoenix, AZ

Project: Broadway Area Infrastructure Program Phase 3.A
 Project#: 0662-GR4141-02
 Engineer Est.: \$450,000
 No. Working Days: 30
 Bid Due Date: 2/10/14 at 2 pm

For the following (but not limited to) work items:

- traffic control,
- construction area signs,
- trucking,
- hazardous materials removal,
- grinding,
- striping,
- electrical,
- asphalt, concrete,

If you are interested in bidding on this work or know someone who is, please contact Steve @ 623-321-7654, Fax: 623-321-7655 or email steve@Mail.com
 Plans, Specs, and Requirements for the project are available for review at our office in Anytown or at the ADOT, Phoenix AZ and are available at: <http://www.azdot.gov/projects/Projects>.

For assistance in obtaining bonds, lines of credit, and/or insurance for this project, please contact Steve at the noted phone number.

ABC Construction Company
 123 Main Street Anytown, AZ 85009

Contact: Steve
 Phone: 925-321-7654
 Fax: 925-321-7655
steve@Mail.com

5.4 PROVIDE INTERESTED DBES WITH PROJECT INFORMATION

Purpose: To provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist DBEs in responding to solicitations.

Action: Provide DBEs access to plans, specifications and other contract requirements in a timely manner prior to bid solicitation

Bidder's GFE Documentation:

1) Identify in writing and provide documentation of the following:

- What types of project information did DBEs have access to prior to bid?
- How were DBEs informed of the availability of project information?
- When were they notified they had access to project information?
- Provide copies of advertisements that may explain the above information,
(See *Section 5.03 Selecting Portions of Work* for an advertisement example that informs firms of where project plans are located)
- Provide screen shots of steps in accessing project information online –screenshots must identify project numbers and/or descriptions

5.5 NEGOTIATE IN GOOD FAITH WITH INTERESTED DBES

Purpose: To ensure that negotiations with interested DBEs were made in good faith by providing evidence as to why additional agreements could not be reached for DBEs to perform work. It is the bidder's responsibility to make a portion of the work available to the DBE subcontractors and suppliers, and to select those portions of work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation.

Action: Provide evidence that good faith negotiations took place with interested DBEs.

Pro forma mailings to DBEs requesting bids are not alone sufficient to constitute good faith efforts.

A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. However, prime contractors are not required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. The bidder must submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract. The Department will review whether DBE prices were substantially higher and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime contractor. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

Bidder's GFE Documentation:

- 1) Identify DBEs that were considered for negotiations and include the following information:
 - a. Name of each business;
 - b. Telephone number of each business;
 - c. Contact person name negotiated with;
 - d. A description from the plans and specifications of work selected for subcontracting

- 2) Provide documentation of the following:
 - ALL Quotes from DBEs
 - ALL Quotes from non-DBEs that were considered alongside DBE firms

SECTION 5.05	NEGOTIATE IN GOOD FAITH	EXAMPLE
---------------------	--------------------------------	----------------

NEGOTIATIONS LOG EXAMPLE

ABC Construction Company
 Contact List
 Discovery House Facility

Negotiations Made By
 Rodger Smith

Only List DBEs

Name of Business	Address	Telephone Number	Contact Person	Task Description	Quotes Rec'd?	Considered for project?
Arrow Landscape	567 James St. Anytown, AZ	602-727-4915	Andrew Lang	Erosion Control & Seeding	Yes	No
Bear Valley Contractors	25 Teal St, Anytown, AZ	520-282-3404	Todd Lewinsky	Sidewalk, Curb & Gutter	No	No
B&C Fence Company	456 Apple Dr. Anytown, AZ	480-578-5026	Dorothy Smith	Fencing	Yes	Yes
Delta Cement Co.	10 Banks Ave. Anytown, AZ	623-297-5666	Bob Valentine	Material Supplier	Yes	No
Ebarra Landscape Services, Inc.	345 Ortiz Rd. Anytown, AZ	623-451-2105	Troy Torres	Erosion Control & Seeding	No	No
Flores Grading & Paving	789 Zion Dr. Anytown, AZ	602-383-2928	Ken Overton	Sidewalk, Curb & Gutter	Yes	Yes
Gateway Electric, Inc.	1001 Bakers Anytown, AZ	602-222-2873	Christina Lee	Traffic Signals	No	No
Hertz Air Conditioning Co., Inc.	219 Hightower Anytown, AZ	480-522-8727	Ellen Young	HVAC	No	No
Itachi Landscape	160 Crane St. Anytown, AZ	602-647-8955	Dan Kovaski	Erosion Control & Seeding	Yes	No
Jett Construction, Inc.	456 Anchor Rd. Anytown, AZ	602-364-8081	Rita Holt	Sidewalk, Curb & Gutter	Yes	No

QUOTE EXAMPLE

ABC Construction Company

925-321-7654

Owned By U.S. Perma, Inc.

925-321-7655 Fax

State License No. 439330 – Since 1962

Ceramic

Mosaic

Quarry

Marble

Granite

Pavers

Thin Brick

Date: February 4, 2013

Quote: 06190311

City: Martinez

QUOTE

Reference: DISCOVERY HOUSE FACILITY

Attention: Estimating

Base Bid: \$40,938.00

Addendum's: 1 only

Inclusions

Ceramic tile lobby and restrooms. Mortar floor at restrooms, cement backer board at walls and lobby floor (included at \$6,435.00). Waterproof membrane at restrooms floors.

Exclusions

Demo & Prep

This is a price quote confirmation for the aforementioned project as set forth in the inclusions section of this form. This quote is in accordance with plans, drawings, and specifications as presented to us, or as specified by your company. Shop drawings are not included unless specified above. All labor, materials, taxes, freight, equipment, etc., necessary to attain a complete product are included unless otherwise stated. This bid shall be valid for a period of sixty (60) days.

Thank you,

John Smith

123 Main Street
Anytown, CA 94553

5.6 HAVING SOUND REASON FOR REJECTING DBES

Purpose: To not reject DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities.

Action: The DBE contractor's standing within its industry, membership in specific groups, organizations or associations and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.

Bidder's GFE Documentation:

- 1) Demonstrate that DBEs were rejected for sound reasons based on a thorough investigation of their capabilities;
- 2) Provide documentation of the following examples:
 - Past performance
 - Relevant business experience & stability
 - Safety record
 - Business ethic & moral integrity
 - Technical capacity
 - Other factors

5.7 ASSISTING INTERESTED DBES - BONDING, CREDIT, INSURANCE

Purpose: To assist interested DBEs in obtaining bonds, lines of credit, and insurance as required by ADOT/Subrecipient/LPA/Grantee or Bidder.

Action: Assist interested DBEs in such areas as obtaining bonding, lines of credit, or insurance and providing any technical assistance or information related to the plans, specification, and requirements of the project, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate.

Bidder's GFE Documentation:

- 1) If assistance was given, list each certified DBE to which such assistance was provided and include the following information:
 - a. Name of the DBE;
 - b. Date assistance was provided;
 - c. DBE contact person;
 - d. Telephone number of contact person with DBE; and
 - e. Explanation of assistance provided to the DBE (e.g., obtaining bonding, lines of credit, or insurance).

SECTION 5.07	BONDING, CREDIT, INSURANCE	EXAMPLE
--------------	----------------------------	---------

BONDS, LINES OF CREDIT AND INSURANCE

DBE firm:	Date:
Contact person:	Telephone #:
Assistance offered:	

DBE firm:	Date:
Contact person:	Telephone #:
Assistance offered:	

5.8 ASSISTING INTERESTED DBES – EQUIPMENT, SUPPLIES, MATERIALS, RELATED SERVICES

Purpose: To assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance and services.

Action: Assist interested DBEs in such areas as obtaining equipment, supplies, materials, or related assistance or services related to the plans, specification, and requirements of the project, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate.

Bidder’s GFE Documentation:

- 1) If assistance was given, list each certified DBE to which such assistance was provided and include the following information:
 - a. Name of the DBE;
 - b. Date assistance was provided;
 - c. DBE contact person;
 - d. Telephone number of contact person with DBE; and
 - e. Explanation of assistance provided to the DBE (e.g., obtaining equipment, supplies, materials, or related assistance or services).

SECTION 5.08	EQUIPMENT, SUPPLIES, MATERIALS, RELATED SERVICES	EXAMPLE
---------------------	---	----------------

EQUIPMENT, SUPPLIES, MATERIALS, RELATED ASSISTANCE OR SERVICES

DBE firm:	Date:
Contact person:	Telephone #:
Assistance offered:	

DBE firm:	Date:
Contact person:	Telephone #:
Assistance offered:	

5.9 MINORITY/WOMEN COMMUNITY ORGANIZATIONS

Purpose: To effectively use the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; other organizations as allowed for providing assistance in the recruitment and placement of DBEs.

Action:

- 1) Contact minority/women community organizations, DBE-related agencies recruitment/placement organizations, or other groups, for assistance in contacting, recruiting, and using DBE subcontractors, suppliers, manufacturers, and truckers. Contact should occur in a manner that allows interested DBEs to respond within **ten (10) calendar days** prior to bid opening.

Here are some example organizations that are available for assistance with DBE recruitment. This is not a complete list and bidders are expected to contact additional organizations to assist in finding DBEs.

Ricardo Carlo, President

Associated Minority Contractors of America

2630 S. 20th Place

Phoenix, AZ 85034

Office: (602) 495-0026 Fax: (602) 252-3749

Cell: (623) 521-8195

&

3941 E. 29th Street, Suite 605

Tucson, AZ 85711

Toll Free: (877) 619-0026

Email: amca@qwestoffice.net

Web: www.amcaaz.com

Kaaren-Lyn Morton, Business Consultant

Minority Business Development Agency

Business Center

255 E. Osborn Road, Suite 202

Phoenix, AZ 85012-2358

Office: (602) 248-0007, Ext. 216 Fax: (602) 279-8900

Cell: (480) 343-2799

Email: kaaren@phoenixmbdcenter.com

Web: www.phoenixmbdcenter.com

Operated by the Arizona Hispanic Chamber of Commerce Foundation

Business Engagement & Compliance Office

Arizona Department of Transportation

1801 W. Jefferson St. Ste. 101 (MD 154A)

Phoenix, AZ 85007

Office: (602) 712-7761 Fax: (602) 712-8429

Email: DBESupportiveServices@azdot.gov

The Arizona Unified Transportation Registration and Certification System (AZ UTRACS) online database (<http://www.azutracs.com/>) contains an inventory of DBEs. The database can be queried to provide a list of certified DBEs in specialty areas or discipline-specific.

2) Written requests for assistance must contain:

- a. Areas of work to be subcontracted;
- b. Bidder Name and contact person's name;
- c. Contact person's telephone number;
- d. Description of availability of plans, specifications, and other requirements for the project; and
- e. Bidder's policy concerning assistance to subcontractors (including suppliers, manufacturers, and truckers) in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, related assistance and services.

Bidder's GFE Documentation:

- 1) Submit a copy of each request for assistance in recruiting DBEs.
- 2) Faxed copies must also include the fax transmittal confirmation slip showing the date and time of transmission.
- 3) Mailed letters must include copies of the metered envelopes or certified mail receipts.
- 4) Provide telephone number of each agency.
- 5) Provide contact person with the agency.
- 6) Provide response received from the agency (i.e., lists, Internet page, letters, emails, etc.).
- 7) Furnish any additional data to support demonstration of good faith efforts to contact, recruit, and utilize DBEs on this project.

SECTION 5.09	MINORITY/WOMEN COMMUNITY ORGANIZATIONS	EXAMPLE
--------------	--	---------

DBE QUOTE SOLICITATION REQUEST

(Enter: COMPANY NAME) is soliciting quotes from certified DBEs for the: (Enter: PROJECT LOCATION)
 (Example: Payson Winslow Highway SR 87 Limestone Wash Bridge)

Bidding Date: (Example: NOVEMBER 8, 2013)
 Project No: (Example: STP-BR-087-C(203)T)
 Tracs No: (Example: 000 YU YYU SS86101C)
 Bids due Contractor: (Example: NOVEMBER 4, 2013)

DBEs interested in bidding this project should contact:
 (Example: John Doe at 602 777 0000 or via email estimator@live.com)

(Enter: COMPANY NAME) is interested in subcontracting the following categories of work:

(Enter bid items for bid below)

- Concrete
- Seeding
- Paving
- Trucking
- Excavation
- Survey
- Traffic Control
- Guardrail
- Permanent Signs
- Excavation
- Lead Abatement
- Pavement Marking

***Please include any additional information that would assist efforts in DBE participation and a web-friendly company logo and Point of Contact.**

Bids documents can be found at: (Enter: COMPANY WEBSITE)

For questions regarding the ADOT DBE Supportive Services Program please contact us at DBEsupportiveservices@azdot.gov.

SECTION 6.0 APPENDIX A TO PART 26 – GUIDANCE CONCERNING GFEs

The following appendix from 49 CFR Part 26 is a guide to assist agencies in determining what a good faith effort is.

APPENDIX A TO PART 26 — GUIDANCE CONCERNING GOOD FAITH EFFORTS

Note: "YOU" means the Agency (ADOT) in the following section of this requirement.

- I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - A. (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should

determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

- B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.
- C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.
- D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

- E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

- F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

- H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

- V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

- VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

Note: Contacting BECO (602 712-7761) for assistance in identifying certified DBEs that can perform work on a contract is also considered a strong factor in making good faith efforts.

**END OF
FEDERAL DOCUMENTS**

EXHIBIT F

SUBCONTRACTOR DOCUMENTS WITH CONTRACTOR

Any subcontractor assumptions, clarifications, exclusions, terms & conditions, signature blocks, etc. included are strictly between the Contractor and their subcontractors, and do not apply to the Agreement between the Contractor and the City.