CITY OF PHOENIX, ARIZONA
OFFICE OF THE CITY ENGINEER

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

SR202L (PECOS ROAD) SANITARY SEWER:
CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2
PROJECT WS90500298

MAYOR
THELDA WILLIAMS

CITY COUNCIL
DISTRICT NO. 1 – THELDA WILLIAMS       DISTRICT NO. 5 – VANIA GUEVARA
DISTRICT NO. 2 – JIM WARING              DISTRICT NO. 6 – SAL DICICCIO
DISTRICT NO. 3 – DEBRA STARK            DISTRICT NO. 7 – MICHAEL NOWAKOWSKI
DISTRICT NO. 4 – LAURA PASTOR           DISTRICT NO. 8 – FELICITA MENDOZA

CITY MANAGEMENT
CITY MANAGER       ED ZUERCHER
CITY ENGINEER      ERIC J. FROBERG, PE
WATER SERVICES DIRECTOR    KATHRYN SORENSEN
### TABLE OF CONTENTS

**PROJECT TITLE:** SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2  
**PROJECT:** WS90500298

#### SECTION I – Informative

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Call for Bids</td>
<td>C.B. - 1 to 2</td>
</tr>
<tr>
<td>(2) Information for Bidders</td>
<td>I.F.B. - 1 to 11</td>
</tr>
<tr>
<td>(3) Supplementary Conditions</td>
<td>S.C. - 1 to 18</td>
</tr>
<tr>
<td>(4) Special Provisions</td>
<td>S.P. - 1 to 10</td>
</tr>
<tr>
<td>(5) Guidelines for Handling Sonoran Desert Tortoises and Western Burrowing Owl</td>
<td>4 Pages</td>
</tr>
<tr>
<td>(6) Storm Water Pollution Prevention Plan</td>
<td>S.W.P.P.P - 1 to 13</td>
</tr>
<tr>
<td>(7) 404 Permit</td>
<td>11 Pages</td>
</tr>
</tbody>
</table>

#### SECTION II - Submittals

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Bid Proposal</td>
<td>P. - 1 to P. - 2</td>
</tr>
<tr>
<td>(2) Proposal Submittal</td>
<td>P.S. - 1</td>
</tr>
<tr>
<td>(3) Surety Bond</td>
<td>S.B. - 1</td>
</tr>
<tr>
<td>(4) List of Major Subcontractors and Suppliers</td>
<td>L.O.S. - 1</td>
</tr>
<tr>
<td>(5) List of All Subcontractors and Suppliers</td>
<td>L.O.S. - 2</td>
</tr>
<tr>
<td>(6) Bidder’s Disclosure Statement</td>
<td>B.D.S. - 1 to 4</td>
</tr>
<tr>
<td>(7) Affidavit of Identity</td>
<td>A.O.I. - 1</td>
</tr>
</tbody>
</table>

#### SECTION III – Technical Specifications and Drawings

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Technical Specifications</td>
<td>T.S. - 1 to 7</td>
</tr>
</tbody>
</table>

**SEE ADDITIONAL ATTACHMENTS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) City of Phoenix Plan Sheets</td>
<td>Pages 18</td>
</tr>
</tbody>
</table>

**FOR REFERENCE ONLY**

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) ADOT Specifications 100 - 600</td>
<td>Pages 249</td>
</tr>
<tr>
<td>(2) ADOT Specifications 800 – 1000</td>
<td>Pages 295</td>
</tr>
<tr>
<td>(3) ADOT Draft Fence Plans</td>
<td>Pages 8</td>
</tr>
<tr>
<td>(4) ADOT Drainage Plans</td>
<td>Pages 29</td>
</tr>
</tbody>
</table>
The City of Phoenix is seeking a qualified construction contractor to perform the project listed below.

**SCOPE OF WORK**

The scope of work for Phase 2 includes installation of approximately 5,300 linear feet of 15-inch diameter sanitary sewer that is within ADOT right-of-way of State Route 202 Loop (previously Pecos Road alignment) and Arizona State Land property. The project is on the north side of the freeway within the landscape and drainage area. The project extends from an existing stub-out located in Chandler Boulevard at the west end of the project to a manhole connection at 19th Avenue at the east end of the project. Construction will include the installation of approximately 13 polymer concrete sanitary sewer manholes. This is the second phase of a three-phase project.

The contractor should anticipate hard dig conditions for the sewer installation. Also, the work will require extensive coordination with Arizona Department of Transportation and Connect 202 Partners.

An SBE goal was not established for this project due to the lack of work relating to SBE subcontractors.

The Engineer’s Estimate is $1,911,267 to $2,335,993.

**PRE-BID MEETING**

A pre-bid meeting will be held on Monday, March 4, 2019, at 1:00 p.m., at 200 W. Washington Street, City Hall 9th Floor Training Room. A site visit is scheduled for 2:30 p.m. At this meeting, staff will discuss the scope of work, general contract issues and respond to questions from the attendees. As City staff will not be available to respond to individual inquiries regarding the project scope outside of this pre-bid meeting, it is strongly recommended that interested firms send a representative to the pre-bid meeting.

**REQUEST FOR BID PACKET**

The bid packet will be available for download on the City of Phoenix Design and Construction Procurement’s “Current Opportunities” web page as of Thursday, February 14, 2019. The web address is:

https://www.phoenix.gov/streets/procurement-opportunities/current-opportunities
Firms receiving a copy of the bid packet through any other means are strongly encouraged to download the bid packet from the City webpage and register as a plan holder for the project. The plan holder list is available for viewing within the project folder.

**GENERAL INFORMATION**

The City reserves the right to award the contract to the lowest responsible responsive bidder or all bids will be rejected, as soon as practicable after the date of opening bids.

The City of Phoenix will provide reasonable accommodations for alternate formats of the bid packet by calling Julie B. Smith at (602) 534-2418 or calling TTY System (602) 256-4286. Requests will only be honored if made within the first week of the advertising period. Please allow a minimum of seven calendar days for production.

Questions pertaining to process or contract issues should be directed to Julie B. Smith at (602) 534-2418 or julie.b.smith@phoenix.gov (preferred).

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Ed Zuercher  
City Manager

Eric J. Froberg, PE  
City Engineer

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Published: Arizona Business Gazette  
Date: February 14, 2019  
Date: February 21, 2019

District: 6
INFORMATION FOR BIDDERS

1. **102 BIDDING REQUIREMENTS AND CONDITIONS**, Add the following to MAG and COP Supplement to MAG Section 102 BIDDING REQUIREMENTS AND CONDITIONS:

**INFORMATION FOR BIDDERS**

**A. QUESTIONS ON PLANS AND SPECIFICATIONS**

Neither the Engineer nor the City of Phoenix will be held responsible for any oral instructions. Any changes to the plans and specifications will be in the form of an addendum. All Addenda will be posted online within the project folder at the following website:

https://www.phoenix.gov/streets/procurement-opportunities

A Planholder List is available within the project folder on the Design and Construction Procurement’s website under “Current Opportunities”. The web address is:

https://www.phoenix.gov/streets/procurement-opportunities

For additional information prior to submitting your bid, contact:

Plans, Technical/Special Provisions, Proposal or Specifications:
NAME: Julie B. Smith, Design and Construction Procurement Section
ADDRESS: 200 W. Washington Street, 6th Floor, Phoenix, AZ 85003-1611
PHONE: (602) 534-2418 E-MAIL: julie.b.smith@phoenix.gov

SBE Utilization contact:
Equal Opportunity Department: (602) 262-6790

All questions regarding the plans and specifications must be received (in writing) at a minimum seven calendar days prior to bid opening. Questions received after that time may not be given any consideration.

**B. REQUEST FOR SUBSTITUTIONS**

Paragraph A, B, and C of MAG Section 106.4 are deleted, and the following paragraphs substituted:

1. The Engineer will consider written request(s), by a prime bidder only, for substitution(s) which is/are considered equivalent to the item(s) specified in the Contract documents. The written request will be considered only if it is received at least twelve (12) calendar days prior to the established bid date. Notification of acceptable substitutions will be made by addendum issued no fewer than seven calendar days prior to the established bid date. (A.R.S. 34-104)

2. The prime bidder, at his own expense, will furnish the necessary data of substitution and validate that the physical, chemical, and operational qualities of each substitute item is such that this item will fulfill the originally specified required function.

3. The substitution, if approved, will be authorized by a written addendum to the Contract documents and will be made available to all bidders. The bid date and the scheduled completion time will not be affected by any circumstances developing from this substitution.
4. The request will be submitted to Design and Construction Procurement Section, Attention Julie B. Smith, 6th Floor, Phoenix City Hall, 200 W. Washington Street, Phoenix, Arizona 85003-1611 or via email to julie.b.smith@phoenix.gov.

C. **BID BOND**

Bidders must submit a properly completed proposal guarantee, certified check, cashier's check or on the surety bond provided, for an amount not less than ten (10) percent of the total amount bid included in the proposal as a guarantee that the contractor will enter into a contract to perform the proposal in accordance with the plans and specifications. Surety bonds submitted for this project will be provided by a company which has been rated "A- or better for the prior four quarters" by the A.M. Best Company. **A bid will be deemed non-responsive if not accompanied by this guarantee.**

The surety bond will be executed solely 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 Department of Insurance pursuant to Title 20, Chapter 2, Article 1. The surety bond will not be executed by an individual surety or sureties even if the requirements of Section 7-101 are satisfied. The City Clerk will return the certified check, cashiers check, or surety bond to the contractors whose proposals are not accepted, and to the successful contractor upon the execution of a satisfactory bond and contract.

When providing a Surety Bond, **failure to provide an "A- or better for the prior four quarters" bond will result in bid rejection.**

D. **LIST OF MAJOR SUBCONTRACTORS AND SUPPLIERS & LIST OF ALL SUBCONTRACTORS AND SUPPLIERS**

**A bid will be deemed non-responsive if not accompanied by a properly completed and signed “List of Major Subcontractors and Suppliers” form.**

To assist in eliminating the practice of bid shopping on City construction projects, the bidder will list all Major Subcontractors and Suppliers (including SBE) to whom the bidder intends to contract with that are equal to or greater than 5% of the base bid. The list of major subcontractors and suppliers will be provided on the “List of Major Subcontractors” form. **Failure to properly complete and sign this form will result in bid rejection.** This form is due with the bid.

If substantial evidence exists that bid shopping occurred on this project, the Bidder will be ineligible to bid on City construction projects for a period of one year.

The list of All Subcontractors and Suppliers will be provided on the “List of All Subcontractors and Suppliers” form. **Failure to properly complete and sign this form will result in bid rejection.** This form is due three calendar days after bid opening by 5:00 p.m. A bid will be deemed non-responsive if a properly completed and signed “List of All Subcontractors and Suppliers” form is not submitted.

E. **BID SUBMITTAL**

The properly completed bid documents along with the ten (10) percent bid guarantee will be submitted in a sealed envelope. The outside of the envelope will be marked as follows:

Bid of (Firm's Name, Address and Phone Number)
For: SR202L (Pecos Road) Sanitary Sewer: Chandler Boulevard to 17th Avenue – Phase 2
City of Phoenix Project Number: WS90500298

I.F.B. - 2
Sealed bids will be submitted to the bid box located by the Design and Construction Procurement Reception Desk located on the 6th Floor of the Phoenix City Hall Building, 200 W. Washington Street, Phoenix, Arizona, 85003 prior to the time and date specified for bid opening.

F. BID WITHDRAWALS

MAG Section 102-10, Withdrawal or Revision of Proposal, is hereby deleted and the following paragraph is submitted:

"No bidder may withdraw or revise a proposal after it has been deposited with the City except as provided in Phoenix City Code Chapter 2, Section 190.2. Proposals, read or unread, will not be returned to the bidders until after determination of award has been made.

G. ADDENDA

Acknowledge all addenda; a bid will be deemed non-responsive if all issued addenda for this project are not acknowledged in writing on Page P. -1.

The City of Phoenix will not be responsible for any oral responses or instructions made by any employees or officers of the City of Phoenix regarding bidding instructions, plans, drawings, specifications or contract documents. A verbal reply to an inquiry does not constitute a modification of the Invitation for Bid (IFB). Any changes to the plans, drawings and specifications will be in the form of an addendum.

It will be the responsibility of the prospective bidder to determine, prior to the submittal of its bid, if any addenda to the project have been issued by the Design and Construction Procurement Section. All addenda issued will be acknowledged by the bidder on Page P-1. All addenda (if any) will be available online within each project’s folder at the following website:

https://www.phoenix.gov/streets/procurement-opportunities

The contractors and/or consultants are responsible for ensuring they have all addenda and/or notifications for all projects they are submitting on. Prospective bidders are strongly encouraged to check the Design and Construction Procurement website in order to ascertain if any addenda have been issued for the project.

H. BID SUBMITTAL CHECKLIST

BID SUBMITTAL CHECKLIST

This checklist is provided to remind bidders of several of the required elements of the bid packages. It is not intended to be a comprehensive list of all of the contract documents. Bidders are encouraged to review all of the Bid Instructions to determine compliance therein.

ALL FIRMS MUST BE REGISTERED IN THE CITY’S VENDOR MANAGEMENT SYSTEM PRIOR TO SUBMITTING A PROPOSAL. FOR NEW FIRMS - THE CITY WILL SEND AN EMAIL TO YOUR FIRM WITH A VENDOR NUMBER WITHIN TWO DAYS OF SUBMITTING THE REQUEST. THE VENDOR NUMBER NEEDS TO BE INCLUDED ON THE COVER OF THE STATEMENT OF QUALIFICATIONS OR ON THE BID PROPOSAL PACKAGE/ENVELOPE. INFORMATION ON HOW TO REGISTER WITH THE CITY IS AVAILABLE AT:

https://www.phoenix.gov/finance/vendorsreg
o Acknowledge all addenda? (Page P-1)

o Completed all the Bid Proposal forms? (Pages P-1 to P-2 and P.S. - 1)

o Included your Bid Bond (rated A- or better for the prior four quarters) or Guarantee Cashier’s Check? (Page S.B.-1)

o Completed List of Major Subcontractors and Suppliers form? (Page L.O.S.-1)

PLEASE DO NOT SUBMIT THE ENTIRE SPECIFICATION BOOK WHEN SUBMITTING YOUR BID. INCLUDE ONLY THE REQUIRED BIDDING DOCUMENTS.

POST-BID SUBMITTAL CHECKLIST

All bidders wishing to remain in contention for award of the contract must submit completed contracts documents listed below. The documents must be submitted to the Design and Construction Procurement Section, 6th Floor, or can be sent by email to julie.b.smith@phoenix.gov.

o Completed List of All Subcontractors and Suppliers form (L.O.S.-2) (3 calendar days after bid opening by 5:00 p.m.)

o Bidders Disclosure Statement? (Pages B.D.S.-1 to 4) (3 calendar days after bid opening by 5:00 p.m.)

o Submit Affidavit of Identity (if you are a sole proprietor) (Page A.O.I. – 1) (3 calendar days after bid opening by 5:00 p.m.)

I. CANCELLATION OF CONTRACT FOR CONFLICT OF INTEREST

All parties hereto acknowledge that this Agreement is subject to cancellation by the City of Phoenix pursuant to the provisions of Section 38-511, Arizona Revised Statutes.

J. CONTRACTOR’S LICENSE AND PRIVILEGE LICENSE AND CERTIFICATIONS

Prior to bidding on this project, the bidder must possess the correct license to perform the work described in the plans and specifications. Prior to award of the contract, the successful bidder must provide to the Contract Procurement Section its Contractor’s License Classification and number, its City of Phoenix Privilege License number and Federal Tax Identification number.

Bidder will submit the Bidder’s Disclosure Statement as set forth in Pages B.D.S. - 1 to B.D.S. - 4 within three calendar days of bid opening by 5:00 p.m.

Unless provided otherwise in this solicitation, Bidder will be deemed non-responsive and the bid rejected if Bidder fails to possess the proper Contractor’s and Business Licenses at the time of bid or fails to submit a substantially completed Bidder’s Disclosure Statement as specified above.

K. TAX LIABILITIES; DISCLOSURE OF CONVICTIONS AND BREACH(S) OF CONTRACT

On or before the award of the contract for this project, the successful bidder will: (i) file all applicable tax returns and will make payment for all applicable State of Arizona and Maricopa County Transaction Taxes (ARS Sec. 41-1305) and City of Phoenix Privilege License Taxes (Phoenix City Code Sec.14-415); (ii) disclose any civil fines, penalties or any criminal
convictions, other than for traffic related offenses, for violation of federal, state, county or city laws, rules or regulations including, but not limited to, environmental, OSHA, or labor compliance laws (collectively “Laws”) by Bidder, Bidder’s directors, managing members, responsible corporate officers or party who will be responsible for overseeing and administering this project (collectively “Bidder”); and (iii) disclose any material breach(s) of an agreement with the City of Phoenix, any termination for cause or any litigation involving the City of Phoenix occurring within the past three calendar years. Unless provided otherwise in this solicitation, the successful bidder will be deemed non-responsible and the bid rejected for any of the following: (i) Bidder’s civil or criminal conviction, other than for traffic related offenses, for a violation of Laws within the past three calendar years; (ii) liability or culpability resulting in payment of fines or penalties in the cumulative total amount of $100,000 or greater for a violation of “Laws” within the past three calendar years; (iii) material breach of a City of Phoenix agreement, termination for cause or litigation with the City of Phoenix within the past three calendar years; and (iv) Bidder’s failure to disclose the information as required by this provision. Further, after award of contract, in addition to any other remedy, Bidder’s failure to remit proper taxes to the City of Phoenix may result in the City withholding payment pursuant to Phoenix City Charter Chapter XVIII, Section 14 until all delinquent taxes, interest, and penalties have been paid.

State and Local Transaction Privilege Taxes:
In accordance with applicable state and local law, transaction privilege taxes may be applicable to this transaction. The state and local transaction privilege (sales) tax burden is on the person who is conducting business in Arizona and the City of Phoenix. The legal liability to remit the tax is on the person conducting business in Arizona. Any failure by the Contractor to collect applicable taxes from the City will not relieve the Contractor from its obligation to remit taxes.

It is the responsibility of the prospective bidder to determine any applicable taxes. The City will review the price or offer submitted and will not deduct, add or alter pricing based on taxes.

If you have questions regarding tax liability, seek advice from a tax professional prior to submitting bid. Once your bid is submitted, the Offer is valid for the time specified in this Solicitation, regardless of mistake or omission of tax liability.

If the City finds over payment of a project due to tax consideration that was not due, the Contractor will be liable to the City for that amount, and by contracting with the City agrees to remit any overpayments back to the City for miscalculations on taxes included in a bid price.

For purposes of A.R.S. 42-5075(P), this contract is subject to A.R.S. Title 34.

Tax Indemnification:
Contractor will, and require the same of all subcontractors, pay all federal, state and local taxes applicable to its operation and any persons employed by the Contractor. Contractor will, and require the same of all subcontractors, hold the City harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under federal, and/or state and local laws and regulations and any other costs including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker’s Compensation.

Tax Responsibility Qualification:
Contractor may be required to establish, to the satisfaction of City, that any and all fees and taxes due to the City or the State of Arizona for any License or Transaction Privilege taxes, Use Taxes or similar excise taxes, are currently paid (except for matters under legal protest).
Contractor agrees to a waiver of the confidentiality provisions contained in the City Finance Code and any similar confidentiality provisions contained in Arizona statutes relative to State Transaction Privilege Taxes or Use Taxes.

Contractor agrees to provide written authorization to the City Finance Department and to the Arizona State Department of Revenue to release tax information relative to Arizona Transaction Privilege Taxes or Arizona Use Taxes in order to assist the Department in evaluating Contractor's qualifications for and compliance with contract for duration of the term of contract.

L. STANDARD SPECIFICATIONS AND DETAILS

Except as otherwise required in these specifications, bid preparation and construction of this project will be in accordance with all applicable Maricopa Association of Governments' (MAG) Uniform Standard Specifications and Uniform Standard Details, latest revision, and the City of Phoenix Supplements to the MAG Uniform Standard Specifications and Details, latest revision.

M. PRECEDENCE OF CONTRACT DOCUMENTS

In case of a discrepancy or conflict, the precedence of contract documents is as follows:

1. Change Orders or Supplemental Agreements
2. Addenda
4. The Plans
5. COP Supplement to MAG Standard Specifications and Details, latest revision
6. MAG Standard Specifications and Details, latest revision

The precedence of any Addenda falls within the category of which it represents.

N. CONFIDENTIALITY OF PLANS & SPECIFICATIONS

Any plans generated for this project must include the following statement in the Title Block on every page: "Per City of Phoenix City Code Chapter 2, Section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of Contractor's contract with the City of Phoenix."

O. AUDIT AND RECORDS

Records of the Contractor's direct personnel payroll, bond expenses, and reimbursable expenses pertaining to this Project, and records of accounts between the City and Contractor will be kept on the basis of generally accepted accounting principles and must be made available to the City and its auditors for up to three years following Final Acceptance of the Project.

The City, its authorized representative, and/or any federal agency, reserves the right to audit the Contractor's records to verify the accuracy and appropriateness of all cost and pricing data, including data used to negotiate the Contract and any change orders.

The City reserves the right to decrease Contract price and/or payments made on this Contract and/or request reimbursement from the Contractor following final contract payment on this Contract if, upon audit of the Contractor's records, the audit discloses the Contractor has provided false, misleading, or inaccurate cost and pricing data.
The Contractor will include a similar provision in all of its Agreements with subcontractors and suppliers providing services or supplying materials under the Contract Documents to ensure that the City, its authorized representative, and/or the appropriate federal agency has access to the Subcontractor’s and Supplier’s records to verify the accuracy of all cost and pricing data.

The City reserves the right to decrease the Contract price and/or payments made on this Contract and/or request reimbursement from the Contractor following final contract payment on this Contract if the above provision is not included in the Subcontractor’s and Supplier’s contracts, and one or more Subcontractors or Suppliers refuse to allow the City to audit their records to verify the accuracy of cost and pricing data.

If, following an audit of this Contract, the audit discloses the Contractor has provided false, misleading or inaccurate cost and pricing data, and the cost discrepancies exceed 1% of the total Contract billings, the Contractor will be liable for reimbursement of the reasonable, actual cost of the audit.

P. IMMIGRATION REFORM AND CONTROL ACT

Compliance with Federal Laws Required. Contractor understands and acknowledges the applicability of the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act to it. Contractor agrees to comply with these Federal Laws in performing under this Agreement and to permit City inspection of its personnel records to verify such compliance.

Q. LEGAL WORKER REQUIREMENTS

The City of Phoenix is prohibited by A.R.S. § 41-4401 from awarding a contract to any contractor who fails, or whose subcontractors fail, to comply with A.R.S. § 23-214(A). Therefore, Contractor agrees that:

1. Contractor and each subcontractor it uses warrants their compliance with all federal immigration laws and regulations that relate to their employees and their compliance with § 23-214, subsection A.

2. A breach of a warranty under paragraph 1 will be deemed a material breach of the contract that is subject to penalties up to and including termination of the contract.

3. The City of Phoenix retains the legal right to inspect the papers of any Contractor or subcontractor employee who works on the contract to ensure that the Contractor or subcontractor is complying with the warranty under paragraph 1.

R. CONTRACTOR AND SUBCONTRACTOR WORKER BACKGROUND SCREENING

Background Screening Requirements and Criteria

The City has established levels of risk and associated Background Screening. For Contractor services in the right-of-way, the risk level and Background Screening required is Minimum Risk. The risk level and background screening required for this project is Minimum.

Terms of This Section Applicable to all of Contractor’s Contracts and Subcontracts. Contractor will include the terms of this Section for Contract Worker Background Screening in all contracts and subcontracts for services furnished under this Agreement including, but not limited to, supervision and oversight services.
(1.) **Contract Worker Background Screening**

Contractor agrees that all contract workers and subcontractors (collectively “Contract Worker(s)”) that Contractor furnishes to the City pursuant to this Agreement will be subject to background and security checks and screening (collectively “Background Screening”) at Contractor’s sole cost and expense as set forth in this Section. The Background Screening provided by Contractor will comply with all applicable laws, rules and regulations. Contractor further agrees that the Background Screening required in this Section is necessary to preserve and protect public health, safety and welfare. The Background Screening requirements set forth in this Section are the minimum requirements for this Agreement. The City in no way warrants that these minimum requirements are sufficient to protect Contractor from any liabilities that may arise out of Contractor’s services under this Agreement or Contractor’s failure to comply with this Section. Therefore, in addition to the specific measures set forth below, Contractor and its Contract Workers will take such other reasonable, prudent and necessary measures to further preserve and protect public health, safety and welfare when providing services under this Agreement. The City may, in its sole discretion, accept or reject any or all of the Contract Workers proposed by Contractor to perform work under this Agreement, as well those Contract Workers actually providing services during the term of this Agreement.

Minimum Risk Background Screening requirements include the following:

A Minimum Risk Background Screening will be performed when the Contract Worker: (i) will not have direct access to City facilities or information systems; or (ii) will not work with vulnerable adults or children; or (iii) when access to City facilities is escorted by City workers. The Background Screening for minimum risk will consist of the screening required by Arizona Revised Statutes §§ 41-4401 and following to verify legal Arizona worker status.

(2.) **Materiality of Background Screening Requirements; Indemnity**

The Background Screening requirements of this Section are material to City’s entry into this Agreement and any breach of this Section by Contractor will be deemed a material breach of this Agreement. In addition to the indemnity provisions set forth in Supplementary Conditions Section 7.G of this Agreement, Contractor will defend, indemnify and hold harmless the City for any and all Claims (as defined in Supplementary Conditions Section 7.G arising out of this Background Screening Section including, but not limited to, the disqualification of a Contract Worker by Contractor or the City for failure to satisfy this Section.

(3.) **Continuing Duty; Audit**

Contractor’s obligations and requirements that Contract Workers satisfy this Background Screening Section will continue throughout the entire term of this Agreement. Contractor will notify the City immediately of any change to a Maximum Risk Background Screening of a Contract Worker previously approved by the City. Contractor will maintain all records and documents related to all Background Screenings and the City reserves the right to audit Contractor’s compliance with this Section pursuant to Information for Bidders Section 1.M.

S. **LAWFUL PRESENCE REQUIREMENT**

Pursuant to A.R.S. §§ 1-501 and 1-502, the City of Phoenix is prohibited from awarding a contract 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 that the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement
does not apply to business organizations such as corporations, partnerships or limited liability companies.

T. **LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)**

If practical, the contractor will provide an easily accessible area to serve the construction site that is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, glass, plastics, metals, and designate an area specifically for construction and demolition waste recycling. The contractor must provide documentation that the materials have been taken to a Maricopa County approved recycling facility.

U. **CITY OF PHOENIX EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENT**

1. In order to do business with the City, Contractor must comply with Phoenix City Code, 1969, Chapter 18, Article V, as amended, Equal Employment Opportunity Requirements. Contractor will direct any questions in regard to these requirements to the Equal Opportunity Department, (602) 262-6790.

2. Any Contractor in performing under this contract will not discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, sex, national origin, age, or disability nor otherwise commit an unfair employment practice. The Contractor will ensure that applicants are employed, and employees are dealt with during employment without regard to their race, color, religion, sex, national origin, age, or disability and will adhere to a policy to pay equal compensation to men and women who perform jobs that require substantially equal skill, effort, and responsibility, and that are performed within the same establishment under similar working conditions. Such action will include but not be limited to the following: Employment, promotion, 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 further agrees that this clause will be incorporated in all subcontracts with all labor organizations furnishing skilled, unskilled and union labor, or who may perform any such labor or services in connection with this contract.

If the Contractor employs more than thirty-five employees, the following language will apply as the last paragraph to the clause above:

The Contractor further agrees not to discriminate against any worker, employee or applicant, or any member of the public, because of sexual orientation or gender identity or expression and will ensure that applicants are employed, and employees are dealt with during employment without regard to their sexual orientation or gender identity or expression.

3. **Documentation.** Contractor may be required to provide additional documentation to the Equal Opportunity Department affirming that a nondiscriminatory policy is being utilized.

4. **Monitoring.** The Equal Opportunity Department will monitor the employment policies and practices of suppliers and lessees subject to this article as deemed necessary. The Equal Opportunity Department is authorized to conduct on-site compliance reviews of selected firms, which may include an audit of personnel and payroll records, if necessary.

V. **PROTEST PROCEDURES**

Any bidder who has any objections to the awarding of a contract to any bidder by the City of Phoenix, pursuant to competitive bidding procedures, will comply with Phoenix City Code Chapter 2, Section 188."
W. **DATA CONFIDENTIALITY**

As used in the Contract, “data” means all information, whether written or verbal, including plans, 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 Contractor or its subcontractors in the performance of this Contract.

The parties agree that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to the Contractor or its subcontractors in connection with the Contractor’s or its subcontractor’s performance of this Contract is confidential and proprietary information belonging to the City.

Except as specifically provided in this Contract, the Contractor or its subcontractors will not divulge data to any third party without prior written consent of the City. The Contractor or its subcontractors will not use the data for any purposes except to perform the services required under this Contract. These prohibitions will not apply to the following data provided the Contractor or its subcontractors have first given the required notice to the City:

A. Data which was known to the Contractor or its subcontractors prior to its performance under this Contract unless such data was acquired in connection with work performed for the City;

B. Data which was acquired by the Contractor or its subcontractors in its performance under this Contract and which was disclosed to the Contractor or its subcontractors by a third party, who to the best of the Contractor’s or its subcontractor’s knowledge and belief, had the legal right to make such disclosure and the 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.

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 contract with the City, the Contractor will first notify the City as set forth in this section of the request or demand for the data. The Contractor or its subcontractors will give the City sufficient facts so that the City can be given an opportunity to first give its consent or take such action that the City may deem appropriate to protect such data or other information from disclosure.

The Contractor, unless prohibited by law, within ten calendar days after completion of services for a third party on real or personal property owned or leased by the City, the Contractor or its subcontractors will promptly deliver, as set forth in this section, a copy of all data to the City. All data will continue to be subject to the confidentiality agreements of this Contract.

The Contractor or its subcontractors assume all liability for maintaining the confidentiality of the data in its possession and agrees to compensate the City if any of the provisions of this section are violated by the 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 justifies 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 Contract without notice.
Personal Identifying Information-Data Security

Personal identifying information, financial account information, or restricted City information, whether electronic format or hard copy, must be secured and protected at all times. At a minimum, Contractor must encrypt and/or password protects electronic files. This includes data saved to laptop computers, computerized devices or removable storage devices.

When personal identifying information, financial account information, or restricted City information, regardless of its format, is no longer necessary, the information must be redacted or destroyed through appropriate and secure methods that ensure the information cannot be viewed, accessed, or reconstructed.

In the event that data collected or obtained by Contractor or its subcontractors in connection with this Contract is believed to have been compromised, Contractor or its subcontractors will immediately notify the Project Manager and City Engineer. Contractor agrees to reimburse the City for any costs incurred by the City to investigate potential breaches of this data and, where applicable, the cost of notifying individuals who may be impacted by the breach.

Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. It is further agreed that a violation of this Section will be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Contract without notice.

The obligations of Contractor or its subcontractors under this Section will survive the termination of this Contract.
SUPPLEMENTARY CONDITIONS

1. **103 AWARD AND EXECUTION OF CONTRACT.** Add the following to Subsection 103.3 AWARD OF CONTRACT:

Contract award will be made to a responsive and responsible bidder based on the low total base bid or on the low combination of the total base bid and any selected alternate(s), whichever is in the best interest of the City. If unit pricing is required in the proposal, the extensions and additions will be verified to assure correctness. Award will be based on the revised total if any errors are found. Additionally, the Contractor will meet the minimum SBE subcontracting goal set for this contract or have been granted a full or partial waiver of the goal. The City expressly reserves the right to cancel this agreement without recourse or prejudice to Contractor until all parties have executed the agreement in full.

Any bidder that currently contracts with the City must be in good standing for its proposal to be considered responsive. For the purpose of this Invitation to Bid, good standing means compliance with all contractual provisions, including payment of financial obligations.

2. **103 AWARD AND EXECUTION OF CONTRACT.** Add the following to Subsection 103.5, REQUIREMENT OF CONTRACT BONDS:

A. PERFORMANCE BOND AND LABOR AND MATERIAL BOND

Prior to the execution of a contract, the successful bidder must provide a performance bond and a labor and material bond, each in an amount equal to the full amount of the contract. Each such bond will 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 Department of Insurance. A copy of the Certificate of Authority will accompany the bonds. The Certificate will have been issued or updated within two years prior to the execution of the Contract. The bonds will be made payable and acceptable to the City of Phoenix. The bonds will 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 required by law, and the bonds will have attached thereto a certified copy of Power of Attorney of the signing official. If one Power of Attorney is submitted, it will be for twice the total contract amount. If two Powers of Attorney are submitted, each will be for the total contract amount. Personal or individual bonds are not acceptable. Failure to comply with these provisions will be cause for rejection of the bidder’s proposal.

B. BONDING COMPANIES

All bonds submitted for this project will be provided by a company which has been rated “A- or better for the prior four quarters” by the A. M. Best Company. Failure to provide an “A- or better for the prior four quarters” bond will result in bid rejection.

3. **103 AWARD AND EXECUTION OF CONTRACT.** Delete Subsection 103.6, CONTRACTOR’S INSURANCE in its entirety and substitute the following:

103.6.1 General:
Contractor and subcontractors must procure insurance against claims that may arise from or relate to performance of the work hereunder by Contractor and its agents, representatives, employees and subconsultants. Contractor and subcontractors must maintain that insurance until all of their obligations have been discharged, including any warranty periods under this Contract.

These insurance requirements are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The Contractor is responsible to obtain additional

S.C. - 1
insurance requirements as stipulated by other agencies, such as Arizona Department of Transportation and Arizona State Land Department.

The City in no way warrants that the minimum limits stated in this section are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, its agents, representatives, employees, or subcontractors. Contractor is free to purchase such additional insurance as may be determined necessary.

**MINIMUM SCOPE AND LIMITS OF INSURANCE** - Contractor must provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a “following form” basis.

**Commercial General Liability – Occurrence Form**

Policy must include bodily injury, property damage, broad form contractual liability and XCU coverage.

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Aggregate</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Products – Completed Operations Aggregate</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Personal and Advertising Injury</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Each Occurrence</td>
<td>$1,000,000</td>
</tr>
</tbody>
</table>

The policy must be endorsed to include the following additional insured language: “The City of Phoenix is named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including completed operations.”

**Automobile Liability**

Bodily injury and property damage coverage for any owned, hired, and non-owned vehicles used in the performance of this Contract.

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Single Limit (CSL)</td>
<td>$1,000,000</td>
</tr>
</tbody>
</table>

The policy must be endorsed to include the following additional insured language: “The City of Phoenix is named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including automobiles owned, leased, hired or borrowed by the Contractor.”

**Worker's Compensation and Employers' Liability**

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers’ Compensation</td>
<td>Statutory</td>
</tr>
<tr>
<td>Employers’ Liability</td>
<td></td>
</tr>
<tr>
<td>Each Accident</td>
<td>$100,000</td>
</tr>
<tr>
<td>Disease – Each Employee</td>
<td>$100,000</td>
</tr>
<tr>
<td>Disease – Policy Limit</td>
<td>$500,000</td>
</tr>
</tbody>
</table>

Policy must contain a waiver of subrogation against the City of Phoenix.

This requirement does not apply when a contractor or subcontractor is exempt under A.R.S. §23-902(E), AND when such contractor or subcontractor executes the appropriate sole proprietor waiver form.

**ADDITIONAL INSURANCE REQUIREMENTS:** The policies must include, or be endorsed to include, the following provisions:

On insurance policies where the City of Phoenix is named as an additional insured, the City of Phoenix...
Phoenix is an additional insured to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.

The Contractor’s insurance coverage must be primary insurance and non-contributory with respect to all other available sources.

With regard to general liability, the City of Phoenix is named as an additional insured for both products completed operations and premises operations.

A. NOTICE OF CANCELATION

For each insurance policy required by the insurance provisions of this Contract, the Contractor must provide to the City, within two business days of receipt, a notice if a policy is suspended, voided or cancelled for any reason. Such notice will be sent directly to the City of Phoenix Contract Specialist listed on Page I.B.-1 of these specifications and will be sent by certified mail, return receipt requested.

B. ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers duly licensed or authorized to do business in the state of Arizona and with an “A.M. Best” rating of not less than “B+V.” The City in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

C. VERIFICATION OF COVERAGE

Contractor must furnish the City with certificates of insurance (ACORD form or equivalent approved by the City) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Any policy endorsements that restrict or limit coverage will be clearly noted on the certificate of insurance.

All certificates and any required endorsements are to be received and approved by the City before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.

All certificates required by this Contract must be sent directly to the City of Phoenix Contract Specialist listed on Page I.B. - 1 of these specifications. The City project/contract number and project description must be noted on the certificate of insurance. The City reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time. **DO NOT SEND CERTIFICATES OF INSURANCE TO THE CITY’S RISK MANAGEMENT DIVISION.**

If the Certificate of Insurance reflecting policy coverage and cancellation notice does not conform to the City’s requirements, the contractor must:

- Submit a current insurance certificate (dated within 15 days of the payment request submittal) with each payment request form. The payment request will be rejected if the insurance certificate is not submitted with the payment request.

D. SUBCONTRACTORS

Contractors’ certificate(s) must include all subcontractors as additional insureds under its policies or subcontractors must maintain separate insurance as determined by the contractor,
however, subcontractor’s limits of liability must not be less than $1,000,000 per occurrence/$2,000,000 aggregate.

E. APPROVAL

Any modification or variation from the insurance requirements in this Contract must be made by the Law Department, whose decision is final. Such action will not require a formal Contract amendment but may be made by administrative action.

F. OFF-DUTY POLICE OFFICER REQUIREMENTS

Off Duty Police Officer Requirements

It is required that the City provide off-duty police officers for construction projects as defined in the most recent edition of the City of Phoenix Traffic Barricade Manual. The Engineer must competitively procure Off Duty Police with vendors who are Authorized Traffic Coordinators with the City of Phoenix Police Department Off Duty Coordinator. The following requirements must be included in the procurement:

1. Hourly fees charged

2. Administrative fees (administrative fees to be charged as a part of the hourly rate, not billed separately)
   a. Pay applications requesting reimbursement for Off Duty Police hours worked will be accompanied with itemized documentation indicating officer name, date worked, hours worked, time of day worked and location.
   b. For audit purposes, contractor’s files will contain documentation from the successful off duty vendor that the above items are accounted for in the vendor’s price proposal.

3. Insurance Requirements:
   a. Commercial General Liability – Occurrence Form

   Policy must include bodily injury, property damage and broad form contractual liability coverage.

   General Aggregate $2,000,000
   Products – Completed Operations Aggregate $1,000,000
   Personal and Advertising Injury $1,000,000
   Each Occurrence $1,000,000

   The policy must be endorsed to include the City of Phoenix as an additional insured with respect to liability arising out of the activities performed by, or on behalf of, the contract worker.

   b. Non-owned Auto Liability $1,000,000

   Coverage must be provided if a City of Phoenix Police vehicle is being used in the performance of the off-duty traffic control services. The policy must be endorsed to include the City of Phoenix as an additional insured with respect to liability arising out of the use and operation of a City vehicle.

   c. Worker’s Compensation and Employers’ Liability

   Workers’ Compensation Statutory
   Employers’ Liability $100,000
   Each Accident $100,000
Disease – Each Employee  $100,000
Disease – Policy Limit  $500,000

Policy must contain a waiver of subrogation against the City of Phoenix.

103.6.2 Indemnification of City Against Liability

Consultant (“Indemnitor”) must indemnify, defend, save and hold harmless the City and its officers, officials, agents and employees (“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) (“Claims”) caused or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of Consultant or any of its owners, officers, directors, agents, employees, or subconsultants in connection with this Contract. This indemnity includes any claim or amount arising out of or recovered under workers’ compensation law or on account of the failure of Consultant to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. Consultant must indemnify Indemnitee from and against any and all Claims, except those arising solely from Indemnitee’s own negligent or willful acts or omissions. Consultant is responsible for primary loss investigation, defense and judgment costs where this indemnification applies. In consideration of the award of this contract, Consultant agrees to waive all rights of subrogation against Indemnitee for losses arising from or related to this Contract. The obligations of Contractor under this provision survive the termination or expiration of this Contract.

4. 104 SCOPE OF WORK, Add the following to Subsection 104.1.2 MAINTENANCE OF TRAFFIC:

ADA AND ANSI ACCESS OF PREMISES DURING CONSTRUCTION

Contractor will maintain existing ADA and ANSI accessibility requirements during construction activities in an occupied building or facility. ADA and ANSI accessibility requirements will include, but not be limited to, parking, building access, entrances, exits, restrooms, areas of refuge, and emergency exit paths of travel. Contractor will be responsible for the coordination of all work to minimize disruption to building occupants and facilities.

5. 104 SCOPE OF WORK, Add the following to Subsection 104.1.4 CLEANUP AND DUST CONTROL:

The Contractor will use a power pick-up broom as part of the dust control effort. No separate measurement or payment will be made for cleanup or dust control, or for providing a power pick-up broom on the job.

6. 105 CONTROL OF WORK, Add the following to Subsection 105.1, AUTHORITY OF THE ENGINEER:

A. CONTRACT ADMINISTRATION

The definition of "Engineer" will read as follows:

"Engineer": All references to "Engineer" in these contracts bid documents, including the MAG Specifications, will mean City Engineer or Designated Representative, Wilson Engineers, LLC.

B. PRECONSTRUCTION CONFERENCE

After completion of the contract documents, to include bonds, insurance and signatures and prior to the commencement of any work on the project, the Water Services Department Project Manager will schedule a Pre-Construction Conference. This will be held at City Hall, 200 W. Washington St., Phoenix, Arizona, 85003.
Construction administration will be provided by Wilson Engineers, LLC.

The purpose of this conference is to establish a working relationship between the Contractor, 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 application and processing, coordination with the involved utility firms, emergency telephone numbers for all representatives involved in the course of construction and establishment of the notice to proceed date. The Contractor will also provide copies of all purchase orders and/or contracts with SBE subcontractors and suppliers used to meet the subcontract goals programmed for this project.

Minimum attendance by the Contractor will be a responsible company/corporate official, who is authorized to execute and sign documents on behalf of the firm, the job superintendent and the Contractor's safety officer.

C. AUTHORIZATION OF THE ENGINEER

The City may, at its discretion and without cause, order the Contractor in writing to stop and suspend work. Immediately after receiving such notice, the Contractor will discontinue advancing the work specified under this Agreement.

Such suspension will not exceed one hundred and eighty (180) consecutive days during the duration of the project.

The Contractor may seek an adjustment of the contract price and time, if the cost or time to perform the work has been adversely impacted by any suspension or stoppage of work by the City.

7. 105 CONTROL OF WORK. Add the following to Subsection 105.2 PLANS AND SHOP DRAWINGS:
The Contractor will submit as many of the required shop drawings and product data submittals at the Pre-Construction meeting as practical and possible. All shop drawings and product data submittals will be submitted sufficiently in advance to allow adequate time for City review(s) and approval. The Contractor will submit early enough to allow enough time for reviews based on the assumption that a submittal may be marked “Revise and Resubmit” or “Rejected”, requiring the Contractor to modify the submittal and resubmit for additional review(s) until acceptance.

A separate transmittal will be used for each specific item type, class of material or equipment for which a submittal is required. Multiple items under one transmittal will only be allowed when the items taken together constitute a complete manufacturer’s package or are so functionally related that the entire package should be reviewed as a whole. The contractor will submit an electronic copy of each shop drawing to the Engineer and Project Manager for review.

The Contractor will allow up to four (4) weeks for City review for each submittal. Some submittals may be simple and straightforward and may not require the full four (4) weeks, but other more complex submittals may take the full four (4) weeks.

8. 105 CONTROL OF WORK. Add the following to Subsection 105.7 COOPERATION BETWEEN CONTRACTORS

Other Contractors are expected to be working in or near the area of this contract. State Route 202 Loop South Mountain Freeway (SR202L) will be under construction while this project is being constructed. The Contractor will conduct his work as specified in MAG Section 105.7.
9. **105 CONTROL OF WORK.** Delete **Subsection 105.8 CONSTRUCTION STAKES, LINES AND GRADES** and substitute the following

**Description**

The work under this section will consist of furnishing all materials, personnel and equipment necessary to perform all surveying, staking and verification of the accuracy of all points which have been provided by the Engineer.

Included in this work will be all calculations required for the satisfactory completion of the project in conformance with the plans and specifications. The work will be done under the direction of a registered professional surveyor employed by the Contractor.

Measurements of all removals and pay quantity items will be the responsibility of the Engineer.

When utility adjustments are a part of the contract, the Contractor will perform and be responsible for locating, tying and untying all manholes and valves that are discovered during the course of the contract. The Contractor will set all survey points, stakes and references necessary for carrying out all such adjustments.

The Contractor will furnish all traffic control, including flagging for survey and staking operations. Traffic control will be in accordance with the requirements of the City of Phoenix Barricade Manual.

The Contractor will keep field notes in bound field books. These books will be available for inspection by City personnel at all times and will become the property of the City of Phoenix upon completion of the project.

**Construction Staking Requirements**

Staking will be performed in accordance with the City of Phoenix's Survey Section Standard Requirements for Staking, As-Builts and Quantity Calculations, plus any special addenda provided by the Engineer. The Contractor will provide to the Engineer in writing, for the Engineer's approval, any special procedures that will be used for construction survey staking completion.

The Engineer will provide control points for establishing an accurate construction centerline and will establish bench marks adjacent to this line for the proper layout of the work. Control points will be located on monument line and/or construction centerline at the beginning and ending points of the project. Control points will also be located on the appropriate centerline at all point of curve (PC), points of tangent (PT), and angle points. No less than three (3) bench marks will be provided; one (1) at the beginning of the project, one (1) at the midpoint, and one (1) at the end of the project. Additional bench marks may be provided at other convenient locations, but no more than one (1) additional bench mark will be provided for each 1,320 feet of the project length. Control points set by the Engineer will be identified in the field to the Contractor.

After the Contractor has verified the accuracy of the control points established by the City, the Contractor will set all stakes necessary for construction in accordance with the City of Phoenix Survey Section Standard Requirements.

If errors are discovered during the verification process and control points do not agree with the geometrics shown in the plans, the Contractor will promptly notify the Engineer in writing, and explain the problem in detail. The Engineer will advise the Contractor of any corrective actions which may be necessary.

The Contractor will exercise care in the preservation of stakes, references, bench marks and will reset them when they are damaged, lost, displaced or removed.
Any discrepancies in grade, alignment, locations or dimensions detected by the Contractor will be brought to the attention of the Engineer by letter. No changes in the project plans will be allowed without the approval of the Engineer.

The Engineer reserves the right to make inspections and random checks of any portion of the staking and layout procedure. If, in the Engineer's opinion, the work is not being performed in the manner that will assure proper control and accuracy, the Engineer will order any or all of the staking and layout work redone at no additional cost.

If any portion of the Contractor's staking and layout work is ordered redone, resulting in additional rechecking by the Engineer, the City will be reimbursed for all costs for such additional checking. The amount of such costs will be deducted from the Contractor's progress payment.

Inspection of the Contractor's layout by the Engineer and the acceptance of all or any part of it will not relieve the Contractor of their responsibility to secure the proper dimensions, grades and elevations for the work.

Record Drawings

The Contractor will maintain a record set of plans at the job site. These will be kept legible and current and will show all changes or work added in a contrasting, reproducible color. Two weeks prior to issuance of substantial completion, the Contractor will submit, prior to final inspection, corrected landscape drawings showing the location of all utility services, controller, pipe, valves and wiring. The Engineer will be the sole judge as to the acceptability of the record plans and receipt of an acceptable set is a pre-requisite for final payment.

Measurement

Construction surveying and layout will be measured as a single complete unit of work.

Payment

Payment for construction surveying and layout will be by the lump sum and will be made as follows:

No payment will be made for the resetting of stakes, references, bench marks and other survey control.

10. 105 CONTROL OF WORK

Add the following to Subsection 105.15 ACCEPTANCE, paragraph (B) Final Acceptance:

A. SUBSTANTIAL COMPLETION

The work may be judged substantially complete when all construction has been completed with the possible exception of final inspection punch list work. The purpose of granting or acknowledging substantial completion is to stop contract time. This is particularly important to the Contractor if contract time is exhausted or nearly so and/or punch list work is anticipated to extend beyond the allotted time. Granting of substantial completion will eliminate the possibility of incurring liquidated damages or additional liquidated damages beyond the substantial completion date, whichever case may apply.

In the event that the Engineer grants substantial completion, the Contractor will have thirty (30) days thereafter to complete punch list work, unless additional time is granted— in writing— by the Engineer. In no case will a Contractor be granted more than thirty (30) days to complete punch list work, unless there are extenuating circumstances such as delay in shipment of a specialized piece of equipment, labor strike, or other circumstances beyond the Contractor's control which would necessitate a further time extension.
B. PENALTY FOR FAILURE TO COMPLETE PUNCH LIST WORK WITHIN SPECIFIED TIME

In the event the Contractor fails to complete the punch list work within thirty (30) days following the contract completion date, or in the case of specialized situations within the additional time allotted by the Engineer, the Contractor may be declared in default, and the Engineer may order the work completed by others.

In the event of default, as described herein, the Engineer will withhold from the Contractor's final payment, an amount equal to at least twice the estimated cost of the remaining work. In addition, the Engineer will withhold the retention deducted from contract progress payments until all punch list work has been satisfactorily completed, whereupon twice the amount of the actual cost of completing the work will be deducted from the Contractor's final payment and the remaining funds, if any, including the contract retention, will be released in accordance with the conditions set forth in contract retention.

C. CONTRACT RETENTION

This project will not be considered complete until all work has been completed, including punch list work. Under no circumstances will a Contractor receive any portion of the legally retained progress payments until the City has granted a final acceptance and/or acknowledged substantial completion. The following conditions will apply to each case:

1. **Substantial Completion:** The Engineer may reduce outstanding contract retention to not less than one (1) percent of the total contract amount, upon granting substantial completion, if the value of the punch list work is estimated to be less than one (1) percent of the total contract.

2. **Project Acceptance:** Project acceptance implies that all punch list work is done and the improvements have been accepted by the City. Under these conditions, the retention will be fully released to the Contractor subject only to the signing of the standard claims affidavit and hold harmless clause required for all contracts.

3. **Final Release of Contract Retention and/or Release of More Than Ninety (90) Percent of the Contract Funds:** Prior to final payment and release of monies retained and/or in the case of substantial completion where the Contractor has requested a reduction in contract retention, the Contractor will be required to sign a claims affidavit agreeing to hold the City harmless from any and all claims arising out of the contract.

11. **107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC.** Add the following to Subsection 107.1, LAWS TO BE OBSERVED, paragraph (C):

While every effort has been made to Blue Stake all known utilities, and to research and show on the plans, all existing underground utilities based on the best available information, it will be the Contractor’s responsibility to locate and pothole all existing utilities sufficiently in advance of anticipated new underground construction to identify any potential conflicts and allow reasonable time for the Engineer to determine solutions. Any claims for additional compensation or work required due to the Contractor's non-compliance with this provision will not be considered for payment by the City.

12. **107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC.** Add the following new paragraphs to Subsection 107.1, LAWS TO BE OBSERVED:

(G) **FAIR TREATMENT OF WORKERS**

The Contractor will keep fully informed of all Federal and State laws, County and City ordinances,
regulations, codes and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any way affect the conduct of the work. He will at all times observe and comply with all such laws, ordinances, regulations, codes, orders and decrees; this includes, but is not limited to laws and regulations ensuring fair and equal treatment for all employees and against unfair employment practices, including OSHA and the Fair Labor Standards Act (FLSA). The Contractor will protect and indemnify the Contracting Agency and its representatives against any claim or liability arising from or based on the violation of such, whether by himself or his employees.

(H) DESERT TORTOISE MITIGATION

As stated in the Arizona Interagency Desert Tortoise Team (AIDTT) Management Plan (1996), if a desert tortoise is found in a project area, activities should be modified to avoid injuring or harming it. If activities cannot be modified, tortoises in harm’s way should be moved in accordance with Arizona Game and Fish Department’s “Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects”, revised October 23, 2007 (or the latest revision), included in these contract provisions. Taking, possession, or harassment of a desert tortoise is prohibited by State law, unless specifically authorized by Arizona Game and Fish Department.

(I) BURROWING OWLS MITIGATION – MIGRATORY BIRD TREATY ACT OF 1918

While no burrowing owls have been seen at the project site, small animal burrows likely used by rodents and cottontail rabbits are present. In the event that burrowing owls are found on the site, the project will comply with the Migratory Bird Treaty Act of 1918 and relocate the birds prior to grading. Contact City of Phoenix Street Transportation Department, Environmental Quality Specialist for relocation of burrowing owls:


13. 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, Add the following to Subsection 107.2, PERMITS:

1. HAUL PERMIT

On any project, when the quantity of fill or excavation to be hauled exceeds 10,000 C.Y. or when the duration of the haul is for more than twenty (20) working days, the Contractor will:

A. Obtain approval of the proposed haul route, number of trucks, etc., by the Street Transportation Department, and then;

B. Submit the proposed haul route plan to the Planning and Development Department and pay the appropriate plan-review fee (contact Planning and Development Department at 602-534-5933 for current plan review fee, the cost of which will be considered incidental to the project), and after their approval;

C. Obtain the written haul permit from the Planning and Development Department.

NOTE: Obtaining the haul permit and the approval by Street Transportation does not release the Contractor from strict compliance with MAG Subsection 108.5, Limitation of Operations.

2. STORM WATER POLLUTION PREVENTION PLAN AND AZPDES PERMIT

Any project that disturbs 1 acre or more of the ground surface requires the Contractor to obtain an AZPDES permit and prepare a SWPPP. This project does require an AZPDES permit and SWPPP.
3. **DUST PERMIT**

Any project that disturbs more than 1/10 acre of soil requires an earthmoving permit from Maricopa County. Information and forms can be found at:

[https://www.maricopa.gov/4514/Dust-Control-Permit-Applications](https://www.maricopa.gov/4514/Dust-Control-Permit-Applications)

To facilitate and encourage strict compliance with the Maricopa County Air Pollution Control Regulations pertaining to fugitive dust control, the Contractor will submit the following documentation to the Engineer at the Pre-Construction meeting prior to conducting any earth moving or dust generating activities under the Contract.

a. Copy of a valid Maricopa County Earth Moving (Dust Control) Permit applicable to the work or services under the Contract.

b. Copy of the Dust Control Plan applicable to the work or services under the Contract.

c. Documentation that all of the Contractor’s on-site project managers have received the Comprehensive or Basic dust control training as required by Maricopa County Rule 310 based on project disturbed acres.

For construction sites where 5-acres or more are disturbed, the Contractor will designate and identify to the City an individual who has completed the dust control training as required for the site Dust Control Coordinator. The Dust Control Coordinator will be present on-site all times that earth moving or dust generating activities are occurring and until all ground surfaces at the site have been stabilized.

For construction sites less than 1-acre, the Contractor will designate an individual who has completed Basic Training to be on site at all times that earth moving or dust generating activities are occurring.

The Contractor will notify the Engineer within twenty-four (24) hours of any inspection, Notice of Violation, or other contact by the Maricopa County Air Quality Department with it or any of its subcontractors regarding the work or services under the Contract. A copy of any written communications, notices or citations issued to Contractor or any of its subcontractors regarding the work or services under the Contract will likewise be transmitted to the Engineer within twenty-four (24) hours.

The Contractor will prevent any dust nuisance due to construction operations in accordance with MAG Specifications, Section 104.1.3, Cleanup and Dust Control. The Contractor will use a power pick-up broom as part of the dust control effort. No separate measurement or payment will be made for cleanup or dust control, or for providing a power pick-up broom on the job.

The Contractor agrees to indemnify and reimburse the City for any fine, penalty, fee or monetary sanction imposed on the City by Maricopa County arising out of or caused by the performance of work or services under the Contract. The Contractor will remit payment of the reimbursable sum to the City within thirty (30) days of being presented with a demand for payment from the City.

4. **U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT**

This project is subject to a U.S. Army Corps of Engineers 404 Permit (or U.S. Army Corps of Engineers Nationwide Permit (NWP)). The permit (or NWP) is included in these project specifications. The Contractor will comply with all requirements of this permit.
5. OTHER PERMITS

The Contractor may be required to obtain other permits from other agencies, such as the Arizona Department of Transportation (ADOT) before beginning work or restricting traffic in their right-of-way. The Contractor will be required to obtain these permits and comply with their requirements.

14. 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, Revise the title of Subsection 107.4 ARCHAEOLOGICAL REPORTS to 107.4 ARCHAEOLOGICAL MONITORING AND DISCOVERIES, and add the following:

If suspected archaeological materials are discovered during construction without an archaeologist present, the Contractor will stop work immediately within a 10-meter zone of the discovery, secure the area, and immediately notify the City Archaeology Office (602-495-0901). The Contractor will not recommence work in the area of discovery until directed in writing by the City Archaeology Office.

15. 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, Modify Subsection 107.8, USE OF EXPLOSIVES as follows:

Replace the words "Uniform Fire Code" with "Phoenix Fire Code".

16. 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, Add the following to Subsection 107.8, USE OF EXPLOSIVES:

While geotechnical information indicates some areas of hard rock, NO BLASTING will be allowed on this project due to the close proximity of residences in the area.

17. 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, Add the following to Subsection 107.11, CONTRACTOR’S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES:

A. UNDERGROUND FACILITIES

The Contractor will make whatever investigation it deems necessary to verify the location of underground utility facilities. If such facilities are not in the location shown in the drawings, then (regardless of whether this is discovered prior to or during construction) the contractor’s remedies, if any, pursuant to Art. 6.3, Chapter 2, Title 40, A.R.S. (A.R.S. 40-360.21 through 40-360.32, "Underground Facilities"), will be the contractor's sole remedy for extra work, delays and disruption of the job, or any other claim based on the location of utility facilities. Locations of utility facilities shown on drawings furnished by the City are to be regarded as preliminary information only, subject to further investigation by the contractor. The City does not warrant the accuracy of these locations, and the contractor, by entering into this contract, expressly waives and disclaims any claim or action against the City under any theory for damages resulting from location of utility facilities.

There may be utilities in the project area that have been installed or relocated by Arizona Department of Transportation that may not be included in Blue Stake records.

The Contractor will be responsible for obtaining all Blue Stake utility location information, and for performing all requirements as prescribed in A.R.S. 40-360.21 through .29, for all underground facilities, including those that have been installed on the current project, until the project is accepted by the City.

At least two (2) working days prior to commencing any excavation, the Contractor will call the ARIZONA BLUE STAKE CENTER, between the hours of 7:00 a.m. and 4:30 p.m., Monday
through Friday for information relative to the location of buried utilities. The number to be called is as follows:

Maricopa County (602) 263-1100

B. UTILITY-RELATED CONSTRUCTION DELAY DAMAGES CLAIM PROCEDURES

The following procedure is intended to provide a fair and impartial process for the settlement of construction delay claims associated with unknown or improperly located utility facilities.

The Contractor will immediately notify, in writing, the Project Engineer of any potential utility-related delay claim.

The Contractor will immediately notify the appropriate liaison of the affected utility verbally, followed by a written notification.

The Contractor will coordinate an investigation of the situation with the affected utility and the City's Utility Coordinator. After resolution, the Contractor will provide written notification of the settlement of the claim to all affected parties. If the affected utility makes a decision to handle negotiations for a claim, their personnel will be responsible for monitoring the project and all negotiations with the Contractor regarding the claim.

The Contractor will determine to document requirements of the affected utility for their acceptance of responsibility for the claims. The Contractor will provide four (4) copies of the required documentation to the utility involved and two (2) copies of this documentation to the Project Engineer. The Contractor will obtain written confirmation from the utility company involved of their documentation requirements.

18. 108 COMMENCEMENT, PROSECUTION AND PROGRESS Add the following to Subsection 108.2, SUBLETTING OF CONTRACT:

(F) PROMPT PAYMENT

1. Contractor Payment to Subcontractor or Supplier

Contractor will pay its subcontractors or suppliers within seven (7) calendar days of receipt of each progress payment from the City. The Contractor will pay for the amount of work performed or materials supplied by each subcontractor or supplier as accepted and approved by the City with each progress payment. In addition, any reduction of retention by the City to the Contractor will result in a corresponding reduction to subcontractors or suppliers who have performed satisfactory work. Contractor will pay subcontractors or suppliers the reduced retention within fourteen (14) days of the payment of the reduction of the retention to the Contractor. No Contract between Contractor and its subcontractors and suppliers may materially alter the rights of any subcontractor or supplier to receive prompt payment and retention reduction as provided herein. If the Contractor fails to make payments in accordance with these provisions, the City may take any one or more of the following actions and Contractor agrees that the City may take such actions: (1) hold the Contractor in default under this agreement; (2) withhold future payments including retention until proper payment has been made to subcontractors or suppliers in accordance with these provisions; (3) reject all future bids from the Contractor for a period not to exceed one year from substantial completion date of this project; or (4) terminate agreement.

2. Alternative Dispute Resolution Between Contractor and Subcontractor or Supplier

If Contractor's payment to a subcontractor or supplier is in dispute, Contractor and subcontractor or supplier agree to submit the dispute to any one of the following dispute resolution processes within fourteen (14) calendar days from the date that any party involved gives written notice to the other party(ies): (1) binding arbitration; (2) a form of alternative
dispute resolution (ADR) agreeable to all parties; or (3) a City of Phoenix facilitated mediation. When disputed claim is resolved through ADR or otherwise, the Contractor and subcontractor or supplier agree to implement the resolution within seven (7) calendar days from the resolution date.

3. **Inspection and Audit**

Contractor, its subcontractors and suppliers will comply with A.R.S. 35-214 and the City will have all rights and remedies to inspect and audit the records and files of Contractor, subcontractor or supplier, as afforded the State of Arizona in accordance with the provisions of A.R.S. Section 35-214.

4. **Non-Waiver**

Should the City fail or delay in exercising or enforcing any right, power, privilege, or remedy under this Section, such failure or delay will not be deemed a waiver, release, or modification of the requirements of this Section or of any of the terms or provisions thereof.

5. **Inclusion of provisions in Subcontracts**

Contractor will include these prompt payment provisions in every subcontract, including procurement of materials and leases of equipment for this Agreement.

6. **No Third-Party Benefits or Rights**

Nothing contained in this Agreement is intended to benefit or confer any rights on any person or entity not a party to this Agreement, and no such person or entity, including but not limited to other Contractors, subcontractors or suppliers, may assert any claim, cause of action, or remedy against the City hereunder.

19. **108 COMMENCEMENT, PROSECUTION AND PROGRESS**

Add the following to **Subsection 108.4, CONTRACTOR’S CONSTRUCTION SCHEDULE**:

No later than one (1) week after the Pre-Construction meeting (or one week after the Notice to Proceed date is firmly established), the Contractor will submit to the Engineer, two (2) copies of a detailed Critical Path Model (CPM) chart outlining the detailed progress of all major and critical elements of the project by weeks, from beginning of project to end. The chart will begin at the established Notice to Proceed date and progress on a calendar basis, week by week, to the end of the project.

The Contractor will submit updated CPM charts as required by the Engineer. This will typically be on a monthly basis. The required submittals of updated CPM charts may be less frequent than monthly, if approved by the Engineer.

Neither the City nor the Engineer will accept liability or responsibility for the reasonable or workable nature of the CPM schedules prepared and submitted by the Contractor—that responsibility will remain with the Contractor.

20. **108 COMMENCEMENT, PROSECUTION AND PROGRESS**

Add the following to **Subsection 108.5, LIMITATION OF OPERATIONS**:

A. **WORK HOURS**

Regular working hours will be defined as one 8-1/2-hour shift per day, Monday through Friday, exclusive of City holidays.
Work in excess of regular working hours will be defined as overtime. For overtime which becomes necessary, the Contractor will make a written request to the Engineer at least eight (8) calendar days before the desired overtime. The request will include the duration, dates, times, reason for overtime, and a statement of the consequences if overtime is not approved.

The Contractor will not schedule any overtime work which requires inspection, survey, or material testing without written permission from the Engineer two (2) working days before the proposed overtime work. The Engineer reserves the right to deny the requested overtime. If an overtime request is denied, the Engineer may extend the contract time at no additional cost to the City, including extended overhead costs.

**Unscheduled Overtime**

Overtime that is not requested and approved in accordance with the above procedure will be defined as unscheduled overtime. All costs (including appropriate overhead) will be paid by the Contractor by deduction from the contract.

**Emergency Overtime**

An emergency is defined as work required for a situation that is not within the Contractor's control.

With the Engineer's approval, the Contractor will be permitted to work overtime without being responsible for paying the City's costs.

21. **108 COMMENCEMENT, PROSECUTION AND PROGRESS.** Add the following to Subsection 108.10, **FORFEITURE AND DEFAULT OF CONTRACT**:

**City's Right to Perform and Terminate for Cause**

If the City provides the Contractor with a written order to provide adequate maintenance of traffic, adequate cleanup, adequate dust control or to correct deficiencies or damage resulting from abnormal weather conditions, and the Contractor fails to comply in a time frame specified, the City may have work accomplished by other sources at the Contractor's expense.

If Contractor persistently fails to (i) provide a sufficient number of skilled workers, (ii) supply the materials required by the Contract Documents, (iii) comply with applicable Legal Requirements, (iv) timely pay, without cause, Sub-consultants and/or Subcontractors, (v) prosecute the Contract Services with promptness and diligence to ensure that the Contract Services are completed by the Contract Time, as such times may be adjusted, or (vi) perform material obligations under the Contract Documents, then the City, in addition to any other rights and remedies provided in the Contract Documents or by law, will have the rights set forth below.

Upon the occurrence of an event set forth above, City may provide written notice to Contractor that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Contractor's receipt of such notice.

If Contractor fails to cure, or reasonably commence to cure, such problem, then City may give a second written notice to Contractor of its intent to terminate within an additional seven (7) day period.

If Contractor, within such second seven (7) day period, fails to cure, or reasonably commence to cure, such problem, then the City may declare the Agreement terminated for default by providing written notice to Contractor of such declaration.

Upon declaring the Agreement terminated pursuant to the above, City may enter upon the premises
and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which Contractor hereby transfers, assigns and sets over to City for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items.

In the event of such termination, Contractor will not be entitled to receive any further payments under the Contract Documents until the Work will be finally completed in accordance with the Contract Documents. At such time, the Contractor will only be entitled to be paid for Work performed and accepted by the City prior to its default.

If City’s cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Contractor will be obligated to pay the difference to City. Such costs and expense will include not only the cost of completing the Work, but also losses, damages, costs and expense, including attorneys’ fees and expenses, incurred by the City in connection with the re-procurement and defense of claims arising from Contractor’s default.

22. **108 COMMENCEMENT, PROSECUTION AND PROGRESS**. Add the following to **Subsection 108.11, TERMINATION OF CONTRACT**:

**TERMINATION FOR CONVENIENCE**

The Owner for its own convenience has the right for any reason and at any time to terminate the contract and require the Contractor to cease work hereunder. Such termination will be effective at the time and in the manner specified in the notification to the Contractor of the termination. Such termination will be without prejudice to any claims which the Owner may have against the Contractor. In the event of a termination for convenience, the Contractor will be paid only the direct value of its completed work and materials supplied as of the date of termination, and Contractor will not be entitled to anticipated profit or anticipated overhead or any other claimed damages from the Owner, Architect or the Engineer.

If the City is found to have improperly terminated the Agreement for cause or default, the termination will be converted to a termination for convenience in accordance with the provisions of this Agreement.

**CANCELLATION OF CONTRACT FOR CONFLICT OF INTEREST**

All parties hereto acknowledge that this agreement is subject to cancellation by the City of Phoenix pursuant to the provisions of Section 38-511, Arizona Revised Statutes.

23. **109 MEASUREMENTS AND PAYMENTS**. Add the following to **Subsection 109.2, SCOPE OF PAYMENT**:

**A. PARTIAL PAYMENTS**

The contracting agency will make a partial payment to the Contractor on the basis of an approved estimate prepared by the Engineer or the Contractor for work completed and accepted through the preceding month. The notice to proceed date, which is designated for the specific project involved, will be used as the closing date of each partial pay period. Payment will be made no later than fourteen (14) days after the work is certified and approved. City will review payment requests and make recommendation of approval or denial within seven (7) calendar days.

**B. PAYMENT RETENTION**

At the start of construction, ten percent of all pay requests will be retained by the City to
guarantee complete performance of the contract. When the work is fifty percent complete, this amount may be reduced to five percent providing that construction progress and quality of work is acceptable to the City. Any funds which are withheld from the contractor will be paid no later than sixty days after completion of the contract and settlement of all claims.

In lieu of retention, the contractor may provide as a substitute, an assignment of time certificates of deposit (CDs) from a bank licensed by Arizona, securities guaranteed by the United States, securities of the United States, the State of Arizona, Arizona counties, Arizona municipalities, Arizona school districts, or shares of savings and loan institutions authorized to transact business in Arizona.

Securities deposited in lieu of retention must be deposited into a separate account with a bank having a branch located in the City of Phoenix and be assigned exclusively for the benefit of the City of Phoenix pursuant to the City’s form of escrow agreement.

CDs assigned to the City must be maintained in the form of time deposit receipt accounts. CDs will be assigned exclusively for the benefit of the City of Phoenix pursuant to the City’s form of escrow agreement.

Escrow Agreement forms may be obtained from the Contract Specialist assigned to the project.

24. **109 MEASUREMENTS AND PAYMENTS**, Add the following to **Subsection 109.4.3, DUE TO EXTRA WORK**:

**ALLOWANCE FOR EXTRA WORK**

Contract allowance items are provided for the purpose of encumbering funds to cover the costs of possible change order work. The amount of the allowance item is determined by the Engineer and is not subject to individual bid pricing. All bidders will incorporate the amount pre-entered in the bid proposal and will reflect the same in the total amount bid for this project.

This allowance item provides an estimated funding to cover unforeseen changes that may be encountered, and corresponding extra work needed to complete the contract per plan. Unforeseen extra work, if any, will be as approved by the Engineer; for example, extension of unit bid prices, negotiated price or time and material, in accordance with MAG Specification Section 109.4 and 109.5.

It will be understood that this allowance item is an estimate only and is based on change order history of similar projects. It will not be utilized without an approved contract change order. It is further understood that authorized extra work, if any, may be less than the allowance item.

25. **109 MEASUREMENTS AND PAYMENTS**, Add the following to **Subsection 109.4 COMPENSATION FOR ALTERATION OF WORK**:

**109.4.7 CHANGE ORDERS**

Owner reserves the right to decrease adjustments made in any change order if, upon audit of Contractor’s records, the audit discloses contractor provided false or inaccurate cost and pricing data in negotiating the change order. In enforcing this provision, the parties will follow the procedure provided in the Federal Acquisition Regulation (FAR) clause 52.214-27, found in 48 CFR Part 52.

26. **109 MEASUREMENTS AND PAYMENTS**, Delete Table 109-1 in **Subsection 109.9, DOLLAR VALUE OF MAJOR ITEM**, and substitute the following:
CONTRACT AMOUNT | MAJOR ITEM IS DEFINED AS ANY ITEM EQUAL TO OR GREATER THAN THE FOLLOWING
---|---
Up to $1 million | $15,000 or 3%, whichever is greater
$1 million to $3 million | 3% of the original contract amount to a maximum of $75,000.00
$3 million to $5 million | 2.5% of the original contract amount to a maximum of $90,000.00
Over $5 million | 1.5% of the original contract amount to a maximum of $125,000.00

CONTINGENCY ITEMS

Contingency items which fall under the definition of a major item are subject to negotiation if decreased by more than twenty (20) percent.

Contingency items will not increase more than twenty (20) percent without being subject to renegotiation, regardless of the percentage of that item relative to the total contract amount.

27. **110 NOTIFICATION OF CHANGED CONDITIONS AND DISPUTE RESOLUTION** Add the following to Subsection 110.1 GENERAL:

**SOILS INFORMATION**

The Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, perched groundwater, historic or prehistoric cultural resources, or other differing site conditions on this project. **No additional compensation will be made for any differing site condition that may be encountered.**
SPECIAL PROVISIONS

1. Add the following new Section, **232 STORM WATER POLLUTION PREVENTION – BEST MANAGEMENT PRACTICES**:

   Description

   Implementation of "Best Management Practices" (B.M.P.'s) to reduce stormwater pollution will be undertaken by the Contractor on a multi-tiered, most cost-effective approach. The Contractor will utilize the lowest-cost acceptable B.M.P. available to address each type of potential stormwater pollution situation encountered on the project. Should this prove ineffective in resolving the stormwater pollution problem, additional, higher-cost B.M.P.'s may need to be employed, upon approval by the City.

   Construction Requirements

   Typical multi-tiered B.M.P. approaches to construction operations may include:

   A. ROADWAY SUBGRADE EXCAVATION:

      1. Tier I - The excavated area will create, in effect, a temporary retention area. This may provide adequate control of storm runoff to prevent sediment from leaving the site. Pumping or other methods utilized to drain the excavation will employ filter fabric or other filtering method to remove sediment before leaving the site or entering the storm drain system.

      2. Tier II - Catch basin inlet protection (utilizing filter fabric, gravel, etc.) may be necessary should Tier I controls prove inadequate. Care will be exercised to ensure that Tier II B.M.P.'s do not result in blockage of drainage and resultant flooding of adjacent properties.

   B. OPEN PIPELINE TRENCHES:

      1. Tier I - The open trench itself will act as a temporary retention area. The Contractor will provide a low-cost, readily-installed/removed temporary device on the open end of the pipe to prevent sediment-laden stormwater from entering the pipe. This may consist of a temporary "plug" incorporating filter fabric, a temporary weir, or other device capable of removing sediment before allowing stormwater to enter the pipe. Care must be taken to prevent damming of floodwaters in the excavation that could result in "floating" the pipe.

      2. Tier II - If Tier I protection does not prove satisfactory, the Contractor may need to install straw bales, sandbag berms, or temporary diversion dikes around the perimeter of the open excavation to prevent sediment-laden stormwater from entering the open excavation. Due to installation/removal time, such devices need only be installed during periods of likely precipitation and runoff. Earthen dikes are the preferred alternate, due to ease of installation and removal. Care must be taken to assure that runoff is not blocked to the extent that flooding of adjacent properties will result.

   C. BACKFILLED PIPELINE TRENCHES:

      1. Tier I - As with roadway subgrade excavations, pipeline trenches which have been backfilled but not yet paved will be several inches lower than adjacent pavement areas and will therefore act as temporary retention areas.
2. Tier II - If the "retention" provided by the backfilled area does not prevent sediment-laden runoff from leaving the excavated area, perimeter controls such as silt fence, straw bales, sandbag berms, or gravel filter berms may need to be installed around the downstream edge(s) of the backfilled area. As with open trenches, the selection of the appropriate measure, extent of its application, and time period during which it is needed will be dependent upon cost, site conditions, ease of installation/removal, and likelihood of precipitation/runoff. Again, care must be taken to ensure that diversion of stormwater onto adjacent properties does not result from these installations.

Another stormwater control method, which the Contractor may need to consider, is limiting the amount of area disrupted and therefore subject to sediment-laden stormwater runoff at any one time. Should such project phasing prove necessary due to the failure of other B.M.P.'s, the Contractor will revise his construction activities accordingly, at no additional cost to the City.

Standards for installation of the above B.M.P.'s are provided in the Flood Control District of Maricopa County's "Drainage Design Manual for Maricopa County, Arizona, Volume III, Erosion Control". Installation and operation of B.M.P.'s will be in accordance with that manual.

There will be no separate measurement or payment for preparing or developing Storm Water Pollution Prevention Plans, or for preparing NOI's or NOT's or obtaining an AZPDES Permit, all these costs being considered incidental to the cost of the project.

Use of individual BMP items will conform to the Contractor's approved Storm Water Pollution Prevention Plan (SWPPP).

Measurement and Payment

This project includes a pay item "ALLOWANCE FOR STORMWATER POLLUTION PREVENTION BEST MANAGEMENT PRACTICE (BMP'S)". The amount of this allowance is determined by the Engineer and is not subject to individual bid pricing. All bidders will incorporate the amount pre-entered in the bid proposal and will reflect the same in the total amount bid for this project.

Payment for various types of necessary BMP's will be made from this allowance based on approved invoiced cost of the materials only, plus taxes, and a maximum 15 percent markup for overhead and profit. There will be no separate measurement or payment for the preparation or development of the Storm Water Pollution Prevention Plan; labor or equipment necessary to install, maintain or remove the BMP materials; moving existing BMP materials from one location to another on the same project; or constructing BMP swales or berms, all of these costs being considered incidental to the cost of the project.

2. 345 ADJUSTING FRAMES, COVERS, VALVE BOXES, AND WATER METER BOXES, Revise Subsection 345.1 DESCRIPTION, Subsection 345.5 MEASUREMENT, and Subsection 345.6 PAYMENT as follows:

Delete Subsection 345.1 DESCRIPTION in its entirety, and substitute the following:

Adjustment of manhole frames, covers, clean outs, valve boxes, survey monument boxes (and water meter boxes if located in the pavement) to finish grade will be done AFTER placement of the final surface course pavement.

Any missing manhole frames or covers and water valve or survey monument box hardware (such as lids, for example) will be reported in writing to the Engineer during the initial lowering process to allow arrangements to be made to obtain replacement hardware. Missing hardware that is properly
reported to the Engineer will be supplied to the Contractor by the City of Phoenix or the appropriate private utility company.

Replacement of any missing hardware that was not reported to the Engineer initially as specified, that comes up missing later when these facilities are brought back up to finish grade, will be the full responsibility of the Contractor, at no additional cost to the City. In addition, all manhole frames and covers, water valve and survey monument boxes or other related hardware removed by the Contractor during the lowering process will be maintained in a secure area, and the Contractor will bear full responsibility for this hardware material. Any hardware lost by the Contractor will be replaced in-kind, at no additional cost to the City.

All areas of existing pavement removed for adjustments that will be subjected to traffic prior to placement of final concrete collar rings will be temporarily filled with hot-mix Type D-1/2 asphalt and roller-compacted flush with the adjacent pavement. There will be no separate measurement or payment for this temporary hot-mix asphalt or placement or subsequent removal, the cost being considered incidental to the cost of the adjustment.

After removal of asphalt pavement in the area of adjustment, and prior to placement of the final concrete collar ring around the frame or valve box (as shown on City of Phoenix Detail P-1391 and MAG Detail 422), the asphalt pavement in proximity of the adjustment will be rolled with a self-propelled, steel wheel roller.

The concrete collar ring around the frame or valve box will be circular and will be a minimum of eight (8) inches thick, placed flush with the adjacent new pavement surface. At a minimum, concrete will be MAG Class ‘AA’ on all paved streets. All concrete will be obtained from plants approved by the Engineer.

A single No. 4 rebar hoop will be placed in each adjustment collar. The hoop diameter will be such that its placement is centered between the edge of the manhole frame or valve box, and the outside edge of the concrete collar. The depth of the hoop will be such that it is centered in the thickness of the collar. Each concrete ring will be scored radially at quarter-circle points. Score lines will be 1/4-inch wide by 1/2-inch deep. The concrete collar surface will be rough broom-finished. All pavement removed for adjustments will be replaced with concrete.

Traffic will not be allowed on the collars until the concrete has reached a minimum compressive strength of 2500 psi on residential streets, and 3000 psi on collector and major streets. On major streets, the Contractor will use “high-early” cement in the concrete mix, approved by the Engineer, to minimize delay in re-opening the street to traffic.

Prior to commencing work on the adjustments, the Contractor will submit a written adjustment plan and schedule to the Engineer for approval.

Sewer manhole frames and covers will be matched, kept together, and replaced to their original locations. The Contractor will remove existing asphalt, chip seal, or other materials from all sewer manhole covers and water valve box lids to be adjusted on this project. The Contractor's method for removal will be approved by the Engineer prior to actual work. Cover cleaning will be completed prior to adjustment of frames. Also, all water valve risers will be thoroughly cleaned to fully expose the valve operating nut.

QUARTER SECTION MAPS FOR WATER AND SEWER LINES

The Contractor may obtain up to three sets of waterlines and sewerline quarter section maps for the streets included in this project after the contract is awarded and issued. To order the maps, the Contractor will bring an official contract specification book and a list of desired quarter section maps to the Technical Support Services counter on the 8th Floor of City Hall, 200 W. Washington Street. Up to three sets of maps will be provided at no cost to the Contractor. If more than three sets are
requested, the Contractor will purchase the additional sets.

**WATER VALVE AS-BUILTS**

Upon completion of water valve box adjustments, the Contractor will provide one complete accurate and clearly legible set of as-built waterline Quarter Section maps to the Engineer. The Contractor will mark and color code all water valves on the maps as follows:

- **Blue** - All valves shown on the Q.S. map found and adjusted.
- **Yellow** - All valves shown on the Q.S. map but not found in the field.
- **Red** - Any valve not shown on the Q.S. maps but discovered and adjusted. (Draw valve symbol on map at appropriate location and provide offset and location dimensions for valves in this category.)

*Delete Subsections 345.5 MEASUREMENT and 345.6 PAYMENT* and substitute the following:

**345.5 MEASUREMENT**

Measurement for adjustments will be per each respective item.

**345.6 PAYMENT**

Payment for the appropriate item will be made at the unit price bid for 'ADJUST EXISTING MANHOLE FRAME AND COVER, STANDARD DETAIL 422'; 'ADJUST EXISTING TYPE 'A' WATER VALVE, STANDARD DETAIL P-1391 AND P-1391-1'; 'ADJUST EXISTING SEWER CLEAN-OUT FRAME & COVER, STANDARD DETAIL P-1270'; 'ADJUST SURVEY MONUMENT HANDHOLE FRAME AND COVER, STD DET P-1270; or ADJUST EXISTING WATER METER BOX & COVER. Payment will include all labor, materials, and equipment necessary to satisfactorily clean and make complete adjustments.

There will be no separate measurement or payment for adjusting NEW manhole frame & covers, valve boxes, sewer clean-out frame & covers, or water meter boxes constructed with the project. Payment for adjusting these new facilities is considered included in the price bid for the appropriate new item.

**3. 401 TRAFFIC CONTROL.** Add the following to Subsection 401.4 TRAFFIC CONTROL MEASURES:

**SEQUENCE OF CONSTRUCTION**

The sequence of construction will conform to the requirements of the Special Traffic Regulations.

The project will follow a phasing plan approved by the Engineer. All lanes will be maintained on a paved surface at all times during construction. This may be accomplished by using existing, new, or temporary asphalt pavement. Trenches will be completely backfilled and either paved with temporary asphalt pavement or covered with metal plating as necessary to comply with this requirement and the "Special Traffic Regulations".

Night work will **not** be allowed on this project.

The right to direct the sequence of construction is a function vested solely with the Engineer. Prior to commencement of the work, the Contractor will prepare and submit to the Engineer, a written phasing plan and work schedule for the project. This plan and work schedule will be submitted to the Engineer at the Preconstruction Conference for review.
When approved, the phasing plan and work schedule will not be changed without the written consent of the Engineer. Orderly procedure of all work to be performed under this contract will be the full responsibility of the Contractor. The work schedule will include the hours per day and the days per week that the Contractor plans to work on the project site.

4. **401 TRAFFIC CONTROL.** Add the following to Subsection **401.5 GENERAL TRAFFIC REGULATION:**

**SPECIAL TRAFFIC REGULATIONS**

**Local Access Requirements**

The Contractor will maintain local access to all side streets, access roads driveways, alleys, and parking lots at all times and will notify residents 72 hours in advance of any restrictions which will affect their access. The Contractor will restore the access as soon as possible. If the primary access cannot be restored in a timely manner, the Contractor will provide an alternative which will be pre-determined with the residents prior to imposing any restrictions. Any local street restrictions imposed will be such that local area traffic circulation is maintained.

**Business Access Requirements**

Access will be maintained to adjacent businesses at all times during their hours of operation. Access may be maintained by such measures as constructing driveways in half sections, or by providing bridging over new concrete. Properties with multiple driveway access will not have more than one driveway access restricted at any given time. While the one driveway is restricted, access to the other adjacent driveways will be maintained and unrestricted. Each individual driveway access restriction will be no more than fourteen (14) calendar days. Any business restrictions will be coordinated with the affected business in writing at least fourteen (14) days prior to imposing restrictions.

**Coordination with Other Agency Projects**

The Contractor will coordinate and schedule work to minimize disruption or conflicts with the following other Agency projects:

- **ADOT Project – State Route 202L South Mountain freeway**
  - Contractor: Connect 202 Partners
  - City of Phoenix ADOT Liaison: Jami Erickson, Phone - (602) 261-8229 or email: jami.erickson@phoenix.gov
  - Any work that may affect this project will be coordinated with the appropriate Agency contact at least fourteen (14) days in advance.

**Flagging of Traffic**

No flagging of traffic will be permitted during the peak traffic hours of 6:00 a.m. to 8:30 a.m. and 4:00 p.m. to 7:00 p.m. weekdays. If construction requires, intermittent flagging will be allowed from 8:30 a.m. to 4:00 p.m. if approved by the Engineer, to facilitate access for heavy construction equipment.

**Traffic Control Plan**

The Contractor will submit a traffic control plan for approval, showing placement of all traffic control devices, including all conflicting signs to be covered/removed or relocated, or other features that may conflict with the placement of temporary signage. This plan will be professionally drawn on a 24" x 36" reproducible medium and will be submitted to the Engineer at the Pre-Construction
meeting or before. The Contractor will allow the Engineer fourteen (14) calendar days for review and approval of an acceptable plan.

**Temporary Traffic Control Zone and Safety**

At the Pre-Construction conference, the Contractor will designate an employee, other than the Project Superintendent, who is knowledgeable in the principles and methods of proper traffic control and safety. This employee will be available on the project site during all periods of construction to coordinate and maintain safe, acceptable and effective temporary barricading whenever construction affects traffic. This person will be authorized to receive and fulfill instructions from the Engineer and will supervise and direct traffic control. Instructions and information given by the Engineer to this person will be considered as having been given to the Contractor.

Failure to maintain temporary traffic control devices in accordance with the City of Phoenix Traffic Barricade Manual, latest edition, the approved Traffic Control Plan, and directives by the Engineer will result in suspension of work and/or civil sanctions until deficiencies are corrected to the satisfaction of the Engineer.

**Safety Fencing Requirement for Trenches and Excavations**

The Contractor will provide safety construction fencing around all open trenches and excavations during all non-working hours.

The Contractor will provide for the safety and welfare of the general public by adequately fencing all excavations and trenches that are permitted by the Engineer to remain open when construction is not in progress.

Fencing will be securely anchored to approved steel posts located six (6) feet on centers, having a minimum height of six (6) feet, and will consist of wire mesh fabric of sufficient weight and rigidity to adequately span a maximum supporting post separation of six (6) feet.

The fencing, when installed about the periphery of excavations and trenches, will form an effective barrier against intrusion by the general public into areas of construction. Fencing will not create sight distance restrictions or visual obstructions. At all times when construction is not in progress, the Contractor will be responsible for maintaining the fencing in good repair, and upon notification by the Engineer, will take immediate action to rectify any deficiency. Prior to the start of any excavating or trenching required for the execution of the proposed work, the Contractor will submit to the Engineer for approval, detailed plans showing types of materials and methods of fabrication for the protective fencing.

There will be no separate measurement or payment for furnishing, installing, or maintaining protective fencing. The cost will be considered incidental to the cost of the pipe and/or structures.

5. **401 TRAFFIC CONTROL.** Add the following to Subsection 401.10 PAYMENT:

**TRAFFIC CONTROL**

Payment for traffic control will be on a lump sum basis for Traffic Control Devices.

6. Add the following new Section **402 ADDITIONAL CONSTRUCTION REQUIREMENTS** as follows:

**402.2 CONTRACTOR COMMUNICATION INFORMATION**

The Contractor will provide a pager and mobile phone to his on-site Project Superintendent to ensure that the Engineer can reach the Contractor’s Superintendent. This pager and mobile phone must be accessible by local land-line telephone service. The Superintendent’s pager and mobile
phone will remain in service for the duration of the project, and these phone numbers will be included on the Contractor's list of emergency phone numbers submitted at the pre-construction conference.

402.3 TRENCH PLATING
In paved areas where vehicles will be driving over trench plating, the plates will be set to match flush with existing pavement on all sides. Setting plates on top of the pavement surface and installing temporary asphalt ramps around them will not be allowed.

402.9 PUBLIC INFORMATION SERVICES
The City of Phoenix will provide a public information specialist for the community relations program on this project.

The Contractor will cooperate with the City's public information specialist firm in the preparation of newsletters, advanced notification for service disruptions, answering questions from the public, etc. He will also provide schedule update information to the specialist.

The Contractor will provide representatives as needed for all meetings with the public throughout the contract period.

The City will pay public information service costs associated with approved contract time extensions; however, if the Engineer determines that delays were caused by the Contractor, the additional costs for public information services will be deducted from the Contractor's final pay request.

7. 601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION, Add the following to Subsection 601.2.6 Grading and Stockpiling after the first paragraph:

During excavation, material suitable for backfilling will be piled in an orderly manner, a sufficient distance back from the edges of trenches, to avoid overloading and to prevent slides or cave-ins. Material unsuitable for backfilling, or excess material, will be hauled from the job site and disposed of by the Contractor.

8. 601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION, Add the following to Subsection 601.2.7 Shoring and Sheeting:

The Contractor will do such trench bracing, sheathing or shoring necessary to perform and protect the excavation as required for safety and conformance to governing laws. The bracing, sheathing or shoring will not be removed in one operation but will be done in successive stages as determined by the Engineer to prevent overloading of the pipe during backfilling operations. The cost of the bracing, sheathing or shoring and the removal of same will be included in the unit price for the pipe.

9. 601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION, Add the following to Subsection 601.2.8 Open Trench:

Except where otherwise noted in the special provisions, or approved in writing by the Engineer, the maximum length of open trench, where the construction is in any stage of completion (excavation, pipe laying or backfilling), will not exceed 1,320 feet in the aggregate at any one location.

Any excavated area will be considered open trench until all ABC for pavement replacement has been placed and compacted. With the approval of the Engineer, pipe laying may be carried on at more than one separate location, the restrictions on open trench applying to each location. Trenches across streets will be completely backfilled as soon as possible after pipe laying.
Substantial steel plates with adequate trench bracing will be used to bridge across trenches at street crossings where trench backfill, and temporary patches have not been completed during regular work hours. Safe and convenient passage for pedestrians will be provided. The Engineer may designate a passage to be provided at any point he deems necessary.

10. **601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION.** Add the following to Subsection 601.4.4 Backfill:

**BACKFILL TYPE REQUIREMENTS FOR PIPE TRENCHES**

Type "B" backfill, as shown on City of Phoenix Detail P1200, will be used for all mainline pipe installations across major, collector, or other signalized intersections. At a minimum, the extent of the Type "B" backfill will be from curb-return-to-curbr-return through the intersection, unless noted otherwise on the plans or in the special provisions. Type "B" backfill will also be used for all lateral pipe connections in ALL streets. Type "A-Modified" backfill (suitable native material as specified in City of Phoenix Supplement to MAG Specification Section 601.3.2, except that no piece larger than 3 inches will be allowed), as shown on City of Phoenix Detail P1200, may be used at all other locations, from the top of bedding to the specified pavement subgrade level, unless noted otherwise on the plans or in the special provisions. There is no separate measurement or payment for pipe backfill. The cost is considered included in the bid price for furnishing and installing the pipe. The pavement replacement section will be as specified on the plans or in the special provisions and will be paid for by the square yard or by the ton, whichever is indicated in the special provisions and on the bid proposal.

11. **601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION.** Add the following new Subsection 601.6 PROTECTION OF EXISTING UTILITIES:

**601.6.1 Utilities:** Unless otherwise shown on the plans or stated in the specifications, all utilities, underground or overhead, will be maintained in continuous service throughout the entire contract period. The Contractor will be responsible and liable for any damages to or interruption of service caused by the construction.

If the Contractor desires to simplify his operation by temporarily or permanently relocating or shutting down any utility or appurtenance, he will make the necessary arrangements and agreements with the owner and will be completely responsible for all costs concerned with the relocation or shut down and reconstruction. All property will be reconstructed in its original or new location as soon as possible and to a condition at least as good as its previous condition. This cycle of relocation or shut down and reconstruction will be subject to inspection and approval by both the Engineer and the owner of the utility.

The Contractor will be entirely responsible for safeguarding and maintaining all conflicting utilities that are shown on the plans (Sections 107 and 105 apply). This includes overhead wires and cables and their supporting poles whether they are inside or outside of the open trench. If, in the course of work, a conflicting utility line that was not shown on the plans is discovered, the Contracting Agency will either negotiate with the owner for relocation, relocate the utility, change the alignment and grade of the trench or as a last resort, declare the conflict as “extra work” to be accomplished by the Contractor in accordance with Section 104.

**601.6.2 Irrigation Ditches, Pipes and Structures:** The Contractor will contact the owners of all irrigation facilities and make arrangements for necessary construction clearances and/or dry-up periods.

All irrigation ditches, dikes, headgates, pipe, valves, checks, etc., damaged or removed by the Contractor, will be restored to their original condition or better, by the Contractor at no additional cost to the Contracting Agency.
601.6.3 Building, Foundations and Structures: Where trenches are located adjacent to building, foundations and structures, the Contractor will take all necessary precaution against damage to them. The Contractor will be liable for any damage caused by the construction.

Except where authorized in the special provisions or in writing by the Engineer, water settling of backfill material in trenches adjacent to structures will not be permitted.

There will be no separate measurement or payment for this work. The Contractor will include all associated costs in the unit bid price for the pipe installation.

601.6.4 Permanent Pipe Support Options and Encasements: Where 18-inch or larger mainline pipes (or other pipes as directed by the Engineer) cross under existing sanitary sewerlines (vitrified clay pipe 12-inches or smaller), the Contractor will permanently support the sanitary sewerline per MAG Detail 403-1, 403-2 or 403-3. If the ductile iron pipe replacement option is used (403-3), and the required crossing length is more than one joint of pipe, concrete pipe supports as detailed in MAG Details 403-1 or 403-2 will be used in addition to the ductile iron pipe. For a single joint of standard 20-foot-long ductile iron pipe replacement, the maximum trench width allowed at the point of the sewer line crossing will be 9-feet, unless otherwise directed by the Engineer. Mechanical or restrained joints will be required on all multiple-joint ductile iron pipe crossings.

Where waterlines, reclaimed waterlines or sanitary sewer lines (new or existing) cross over or under each other, pipeline encasements will be provided as necessary in accordance with MAG Detail 404.

When the ductile iron pipe replacement option is used for the sewer lines, the new pipe will be properly blocked at each end with one or more bricks resting on undisturbed or 95% compacted soil haunches outside the trench walls to prevent differential settlement.

The interior of all ductile iron pipe used for sewer lines will be coated per the specification, "LINING FOR DUCTILE IRON PIPE USED FOR SEWER LINES" in these Special Provisions.

Upon completion of a sanitary sewer line support or encasement, including backfilling and compacting, but prior to permanent pavement replacement, the Contractor will request, through the Engineer, a televising of the line by the City Water Services Department to ensure proper line and grade of the sanitary sewer pipe. If the pipe is out of alignment, it will be the Contractor's responsibility to remedy the situation at no cost to the City.

If the sanitary sewer line is less than 8-inches in diameter, the Contractor will provide the necessary equipment and teleview the line to determine proper pipe alignment. The Engineer will be present during the televising, and a video tape of the televising will be made for the City Water Services Department for confirmation that the pipe is properly aligned. The cost of televising the line and preparing the video tape will be included in the bid price paid for the pipe support or encasement.

Permanent pipe supports will be paid for at the unit price bid for each unit installed regardless of type. Encasements will be paid for at the unit price bid per linear foot installed regardless of type. The unit price bid for either item of work will be compensation in full for providing complete and satisfactory permanent pipe supports or encasements, including ductile iron pipe and fittings, concrete, reinforcing steel, forming, vibrating, any required earthwork, televising and videotaping, and any other incidental items necessary.

601.6.5 Electronic, Telephonic, Telegraphic, Electrical, Oil and Gas Lines: During trenching operations, underground facilities such as electronic, telephonic, telegraphic, electrical, oil and gas lines will be supported and protected by the Contractor. Support for plastic pipes will be continuous along the bottom of the pipe. Support for metal pipe and electrical conduit may be continuous or nylon webbing may be used for suspension at no greater than ten-foot intervals.
The Contractor will avoid damaging any pipes, conduits or duct bank facilities during excavation, foundation and bedding placement, and trench backfilling and compaction.

601.6.6 Measurement and Payment:

There will be no measurement or payment for this work. The Contractor will include all associated costs in the unit bid price for the pipe installation.

12. **601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION.** Add the following new Subsection **601.7 CONTRACTOR CERTIFICATION OF INSTALLATION PROCEDURES:**

601.7 CONTRACTOR CERTIFICATION OF INSTALLATION PROCEDURES

When requested in the Special Provisions or by the Engineer prior to installation, the Contractor will furnish to the Contracting Agency an affidavit (certification) from the pipe manufacturer (or his designee) stating that the Contractor is familiar with the manufacturer’s suggested installation methods and procedures and the installation complies with those procedures and is consistent with MAG requirements.

Also, when required in the Special Provisions or requested by the Engineer, the pipe manufacturer or his designee will review the Contractor’s methods and procedures for pipe installation in the field. The Contractor will make any adjustments in the installation as recommended by the manufacturer or his representative. If necessary, the Contractor may be required to reinstall or provide corrections to pipe installed prior to the field review at no cost to the Agency. Once the manufacturer or his representative has reviewed the Contractor’s installation methods and the Contractor has adjusted his installation methods as recommended by the same, the manufacturer or his representative will furnish to the Contracting Agency an affidavit (certification) that the Contractor’s installation methods and procedures, at the time of the review, complied with the manufacturer’s installation practices. The affidavit must provide the name of the manufacturer’s representative witnessing the pipe installation.

13. **625 MANHOLE CONSTRUCTION AND DROP SEWER CONNECTIONS.** Add the following to Subsection **625.2 MATERIALS:**

Per City of Phoenix Water Services Department, “MAG Standard Detail 425: 24” Aluminum Manhole Frame and Cover” is **not approved** and will not be used in the City of Phoenix.

14. **625 MANHOLE CONSTRUCTION AND DROP SEWER CONNECTIONS.** Add the following to Subsection **625.3.1 MANHOLES:**

If steps are inadvertently installed, they will be removed, and the holes will be filled with epoxy or Class “B” concrete.

15. **625 MANHOLE CONSTRUCTION AND DROP SEWER CONNECTIONS.** Delete the first paragraph in Subsection **625.5 PAYMENT** and replace with the following:

Manholes will be paid for at the unit price bid for each type, as represented by the respective bid item, regardless of dimensional or other differences occurring within a particular type. The unit price to be paid under these items will be compensation in full for furnishing and placing manhole structures as shown on the plans and as specified, including concrete, reinforcing steel, forming, vibrating, finishing, curing, cast iron manhole frame and cover, frame adjustment to grade, structural excavation, backfill, compaction and any pavement replacement in excess of the applicable pay widths assigned to the adjacent pipes.
The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran desert tortoise occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40°C Celsius (105°F Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site or alternate burrow is unavailable within this distance, and ambient air temperature exceeds 40°C Celsius (105°F Fahrenheit), contact the Department for guidance. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, may be placed in the Department’s tortoise adoption program. Managers of projects likely to affect desert tortoises should obtain a scientific collecting license from the Department to facilitate handling or temporary possession of tortoises. Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- Use the Department’s Environmental On-Line Review Tool Department during the planning stages of any project that may affect desert tortoise habitat.

- Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

- Take is prohibited by state law.

- These guidelines do not apply to Mojave desert tortoises (north and west of the Colorado River). Mojave desert tortoises are listed as threatened under the Endangered Species Act, administered by the U.S. Fish and Wildlife Service.

- These guidelines are subject to revision at the discretion of the Department.
The purpose of this flyer is to provide City of Phoenix employees and contractors working on City projects with basic knowledge to reduce the risk of impacting Sonoran Desert tortoise.

**Legal Status:**
As defined by the Arizona Game and Fish Department, the Sonoran Desert tortoise is classified as a *Species of Greatest Conservation Need* (Tier 1A).

**Species Description:**
- Length: 8-15 inches
- Bottom shell yellowish and not hinged
- Hind limbs stocky and elephantine
- High-domed, brownish shell with a pattern and prominent growth lines
- Flattened forelimbs for digging, covered with conical scales

**Where are they found?**
- Rocky, steep slopes and lower mountain slopes
- Native desert scrubland
- Between 904 and 4,198 feet in elevation
- Washes and valley bottoms may be used in dispersal

**Where are they active?**
- Sonoran Desert tortoise spend the bulk of time in burrows, which provide protection from heat and cold
- Emerge from burrows on rocky slopes, desertscrub or grassland to feed, bask and breed, mostly during the monsoon season

**How to avoid impacting Sonoran Desert tortoise:**
- Scan ahead as you work
- If Sonoran Desert tortoise observed, STOP WORK, call one of the contacts below and allow the tortoise to leave under its own power
- Do NOT pick up or handle the Sonoran Desert tortoise; improper handling can result in tortoise death
- When working in Sonoran Desert tortoise habitat, check for tortoises under parked vehicles before driving

**Questions? Concerns? Think your project will impact Sonoran Desert tortoise?** Contact a City of Phoenix Street Transportation Department Environmental Quality Specialist:
- Ed Checkley (602) 534-3366, (602) 377-8943 (cell), ed.checkley@phoenix.gov
- Greta Halle (602) 534-6030, (602) 628-7607 (cell), greta.halle@phoenix.gov

Sources:  US Fish & Wildlife Service-Arizona Ecological Services Field Office, Sonoran Desert Tortoise, Document Library-Document by Species

Updated June 22, 2016
The purpose of this flyer is to provide City of Phoenix employees and contractors working on City projects with basic knowledge to reduce the risk of impacting western burrowing owls.

Legal Status:
The western burrowing owl is protected under the Migratory Bird Treaty Act of 1918, as amended. All migratory birds and their parts (including eggs, feathers, and nests) are fully protected. They are also protected under Arizona State Law, Title 17-101, Title 17-235, and Title 17-236.

Species Description:
- Small, ground-dwelling owl (mass of approx. 5 oz.)
- Length: 7.6-9.9 inches, with long legs
- Wingspan: approx. 23 inches
- Round head, lacks ear tufts
- Distinct oval facial ruff, framed by a broad, puffy white eyebrow
- Bright yellow iris

Where are they found?
- Dry, open, short grass, treeless plains
- Human dominated landscapes such as:
  - Golf courses, airports
  - Agricultural fields, vacant lots
- Depends on other animals to construct burrows

Identifying an active burrow
- Western burrowing owls use burrows constructed by ground squirrels, badgers, coyotes, tortoises, etc, or may use pipes, culverts, and ditches.
- They may “decorate” the entrance to a burrow with cow, horse, or dog manure, feathers, vegetation, and trash items
- An active burrow may (not always) have owl excrement (“whitewash”) and/or pellets near the entrance

How to avoid impacting western burrowing owls:
- Scan ahead as you work
- **If western burrowing owls or potentially active burrows observed, STOP WORK and MOVE at least 100 feet away from the owl or occupied burrow before resuming work**
  - Do not harass or “shoo” the owl away
- If the project cannot avoid or stay outside 100 feet of the owl or active burrow, call contact listed below

Questions? Need to work within 100 feet of a western burrowing owl or active burrow? Contact a City of Phoenix Street Transportation Department Environmental Quality Specialist:
- Ed Checkley (602) 534-3366, (602) 377-8943 (cell), ed.checkley@phoenix.gov
- Greta Halle (602) 534-6030, (602) 628-7607 (cell), greta.halle@phoenix.gov

Sources: Arizona Department of Transportation Environmental Planning Group Western Burrowing Owl Awareness Flyer
Arizona Game and Fish Department Animal Abstract: Western Burrowing Owl. Heritage Data Management System

Updated March 2, 2016
Migratory Bird Treaty Act

(Applies to many birds in Phoenix)

The purpose of this flyer is to provide City of Phoenix employees and contractors with basic knowledge to reduce the risk of impacting species protected by the Migratory Bird Treaty Act.

Migratory Bird Treaty Act (MBTA)
Under the Migratory Bird Treaty Act of 1918, as amended, listed birds and their parts (including eggs, feathers, and nests) are fully protected. They are also protected under Arizona State Law, Title 17-101, Title 17-235, and Title 17-236. The MBTA states that it is illegal to:

• Pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg of any such bird.
  o ‘Take’ is defined as to “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.”

More information regarding the MBTA can be found at:
  o https://www.fws.gov/laws/lawsdigest/migtrea.html

Where/When are they active?
• The nests of birds protected by the MBTA can be found in many places, including trees, shrubs, cacti, cattails, on the ground, in holes in the ground and on man-made structures including culverts, bridges, buildings, etc.
• The breeding cycle of most birds in Phoenix occurs between February 1 and August 31, although there are a few species that may nest outside that period. Some birds may be present year-round and others migrate, often during the late summer/early autumn period.

How to avoid impacting birds protected by the MBTA:
• If your project might impact active bird nests/burrows, work with one of the contacts below during the design process to make appropriate arrangements before the project activity begins. Necessary actions may include active nest surveys, seasonal restrictions, or obtaining a project-specific relocation permit from the U.S. Fish and Wildlife Service.
• When actively working, be aware of your surroundings. If you see a nest that appears active (chirping, aggressive or distracting adult bird behavior, eggs present, etc.) STOP WORK within 30 feet of the area and call one of the contacts below.

Questions? Work may impact birds protected by the MBTA? Contact a City of Phoenix Street Transportation Department Environmental Quality Specialist:

Updated November 2, 2016
Add Flyers and guidelines to document:
1) Sonoran Desert Tortoise
2) Update Guidelines for Handling Sonoran Desert Tortoise
3) Migratory Bird Treaty Act
4) Western Burrowing Owl
CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN

Add the following new Section, 233 STORM WATER POLLUTION PREVENTION PLAN SUBMITTAL PROCESS

233.1 DESCRIPTION
The Contractor will use the Arizona Department of Environmental Quality (ADEQ) Smart NOI program for all submittals located at this web address:

https://azdeq.gov/mydeq/features

The location of this process may change and it is the responsibility of the Contractor to verify the correct web address. All fees are the responsibility of the Contractor. The Contractor will apply for a “Stormwater Construction General Permit” with the project type “MUNICIPAL/PUBLIC”.

Before any construction on site begins, the Contractor will submit the Notice of Intent (NOI) and the SWPPP through the Smart NOI program as the sole permittee. The Contractor will not commence any construction activities until the ADEQ send a written Notice Of Intent assigning an AZCON number.

As required by ADEQ the Contractor will submit a Notice of Termination (NOT) through the Smart NOI program. The Contractor will receive final payment only after receiving a written Notice of Termination Acknowledgement from ADEQ.

Projects Impacting Impaired Waters

Projects that will have any construction taking place within ¼ mile of the Salt River between 23rd Avenue and the confluence of the Gila River will impact “Impaired Waters”. These projects will require the Contractor to design, implement, and evaluate a Monitoring Plan for stormwater runoff from their construction activities. The Monitoring Plan must be site specific and will be submitted to ADEQ as an appendix to the SWPPP. ADEQ is the final authority in the approval of the monitoring plan. A copy of the SWPPP and the Monitoring Plan will be kept on-site at all times. Additional copies of the Monitoring Plan should be made available to all personnel who anticipate participating in stormwater monitoring activities. The Contractor will have a copy of the monitoring plan, approved SWPPP, NOI, and ADEQ Authorization to Discharge posted at the jobsite prior to ground disturbance.

Subcontractors

All subcontractors will comply with all AZPDES requirements under the supervision of the General Contractor, and will submit a completed, signed subcontractor certification form, thereby designating themselves as co-permittees.

233.2 SAMPLE SWPPP STRUCTURE

The following is a sample outline of the City requirement for a SWPPP submittal modeled after the ADEQ Construction General Permit Checklist. It will be the Contractor’s responsibility to meet all the ADEQ requirements for a SWPPP and retain a qualified consultant to complete the SWPPP if necessary, at no additional cost to the City.
1 SITE DESCRIPTION

1.1 Project Name: CONTRACTOR WILL FILL IN PROJECT NAME

Project No(s): CONTRACTOR WILL FILL IN PROJECT NUMBER

1.2 Project Location: CONTRACTOR WILL FILL IN FOR PROJECT SITE LOCATION

1.3 Owner’s Name:

City of Phoenix, Water Services Department

1.4 Owner’s Address:

200 West Washington Street, 8th Floor, Phoenix, Arizona 85003

1.5 Project Description: CONTRACTOR WILL FILL IN PROJECT DESCRIPTION

1.6 Runoff Coefficient and Soils Information:

A. Overall runoff coefficient of upstream drainage area will be unchanged by project.

B. Surface Soils Information: (EXAMPLE ONLY, CONTRACTOR WILL FILL IN FOR PROJECT SITE LOCATION)

<table>
<thead>
<tr>
<th>SOIL UNIT</th>
<th>SOIL TYPE (USDA TEXTURE)</th>
<th>PERMEABILITY (IN./HR.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laveen</td>
<td>Loam</td>
<td>0.6-2.0</td>
</tr>
<tr>
<td>Mohall</td>
<td>Clay Loam</td>
<td>0.2-0.6</td>
</tr>
<tr>
<td>Tucson</td>
<td>Clay Loam</td>
<td>0.2-0.6</td>
</tr>
<tr>
<td>Vecont</td>
<td>Clay</td>
<td>0.06-0.2</td>
</tr>
</tbody>
</table>

1.7 Name of Receiving Water:

EXAMPLE: SALT RIVER, CONTRACTOR WILL FILL FOR PROJECT SITE LOCATION

2 CONTROLS

2.1 Erosion and Sediment Controls

2.1.a Stabilization Practices:

Stabilization practices on this site include:

- Permanent planting.
• Save selected existing trees.
• Decomposed granite
• **CONTRACTOR WILL ADD OR REMOVE STABILIZATION PRACTICES AS NECESSARY**

2.1.b Structural Practices:

May include:
• Temporary retention areas (subgrade excavation areas).
• Temporary catch basin inlet protection.
• Silt fence.
• Gravel filter berm.
• Temporary diversion dike.
• Straw bale barriers.
• Sandbag berm
• **CONTRACTOR WILL ADD OR REMOVE STABILIZATION PRACTICES AS NECESSARY**

2.1.c Narrative: Sequence of major activities.

**CONTRACTOR WILL COMPLETE NARRATIVE**

2.1.d Storm Water Management: **(CONTRACTOR WILL EDIT AS NECESSARY)**

Storm water drainage on will be provided by curb and gutter, catch basin inlets, and storm drains. No appreciable changes in runoff coefficients or in finished roadway grades will take place as a result of this project; therefore, no significant alterations of storm water drainage patterns or runoff quantities are expected.

During construction, storm water runoff will be managed by the following means, as conditions require:

• Temporary retention will be provided during roadway construction in areas excavated for subgrade.
• Silt fence, straw bales, sandbag berms, temporary diversion dikes, gravel filter berms or other BMP’s as necessary to eliminate erosion may be used to prevent storm runoff from entering open storm drain pipes in excavated trenches. Temporary catch basin inlet protection may also be provided to remove sediment from drainage water before it enters the drainage system. Straw bale protection at outfall pipe locations may be employed during construction.

3 OTHER CONTROLS

3.1 Waste Disposal:

**Waste Materials:**

All waste materials including trash and construction debris from the site will be either disposed to a designated area immediately or collected and stored in securely-lidded metal dumpsters. The dumpsters will meet all local and State solid waste management regulations. The dumpsters will be emptied a minimum of once per week, or more often if necessary, and the trash will be hauled to an acceptable dump site. Lids will be closed at all times after work hours and during rain events. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal. Notices stating these practices will be posted on site, and the site superintendent who manages the day-to-day site operations, will be responsible for seeing that these procedures are followed.
Concrete washout will only be allowed in designated areas. The hardened waste will be disposed of weekly and before final inspection of the project.

Hazardous Waste:

All hazardous waste materials will be disposed of in the manner specified by local or State regulations or by the manufacturer. Site personnel will be instructed in these practices, and the site superintendent who manages day-to-day site operations, will be responsible for seeing that these practices are followed.

Sanitary Waste:

All sanitary sewage generated on-site will be collected from the portable units a minimum of twice per week or as required by local regulations. Units will have a berm placed around them to ensure no spillage can occur.

3.2 Off-Site Vehicle Tracking:

Traffic will be maintained on paved roadway throughout construction in order to reduce vehicle tracking of sediments. The paved street beyond the start and end of the project will be swept as often as necessary to remove any excess mud, dirt, or rock that may be tracked from the site by construction vehicles, but not less than once per week. Dump trucks hauling material to or from the construction site will be covered with tarpaulin before leaving the site.

4 DEMONSTRATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The following Federal, State, and City regulations are followed in the preparation of this storm water pollution prevention plan:

- Section 402(p) of the Clean Water Act.
- Amended Section 405 of the Water Quality Act.
- “ADEQ Arizona Pollutant Discharge Elimination System General Permit for Discharge from Construction Activities to Waters of the United States, Permit AZG-2008-001.”
- Flood Control District of Maricopa County “Drainage Design Manual for Maricopa County, Arizona, Volume III, Erosion Control.”
- City of Phoenix ”Grading and Drainage Ordinance for Purpose of Fulfilling NPDES Requirements.”

5 MAINTENANCE/INSPECTION PROCEDURES

5.1 Erosion and Sediment Control Practices:

The following is a list of erosion and sediment controls to be used during the construction period:

5.1.a Stabilization practices for this site include:

- Permanent planting.
• Save selected existing trees.
• Decomposed granite.
• CONTRACTOR TO ADD/DELETE AS NECESSARY

5.1.b Structural practices for this site will include:

• Silt fence/straw bale barriers.
• Temporary diversion dike/gravel filter berm.
• Sandbag berm.
• Storm drain, curb and gutter, catch basins.
• Temporary catch basin inlet protection.
• Temporary retention in subgrade excavation areas.
• CONTRACTOR TO ADD/DELETE AS NECESSARY

5.2 Erosion and Sediment Control Maintenance and Inspection Practice:

Following is a list of the inspection and maintenance practices that will be used to maintain erosion and sediment control:

• All control measures will be inspected at least once every 7 days and within 24 hours after each rain event of 0.1 inch or greater.
• All measures will be maintained in good working order; if repair is necessary, it will be initiated within 24 hours of report. All changes will be completed within 14 days after an observation.
• Built-up sediment will be removed from silt fence when it has reduced the design capacity by 50%.
• Erosion control fabric and erosion control dikes will be inspected and any breaches promptly repaired.
• Permanent planting will be inspected for washout and healthy growth per specification requirements.
• A Compliance Evaluation Report will be made at each inspection to ensure all BMP’s are functioning correctly.
• The site superintendent will be responsible for inspection, maintenance, and repair activities, and filling out the Compliance Evaluation Report.
• Personnel selected for inspection and maintenance responsibility will receive training from the site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used on-site in good working order.
• Only one side of roadways will be excavated for subgrade preparation at a time. This area will serve as temporary retention while traffic is maintained on the paved other half of the road. This will serve to control storm water and minimize tracking of sediments.

6 INVENTORY FOR POLLUTION PREVENTION PLAN (CONTRACTOR TO EDIT AS NECESSARY)

The materials or substances listed below are expected to be present on-site during construction:

• Concrete
• Asphaltic Concrete
• Fertilizers
• Petroleum-Based Products
• Cleaning Solvents/Agents
• Sealants
• Wood
• Paints
• Herbicide/Pesticide
• Soil Treatment Products
• Other Building Materials
• Water Used in Dust Control

S.W.P.P.P. - 5

STD DCM Standard MAG Boilerplate

Boilerplate Revision 8/18
6.1 Spill Prevention

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff:

6.1.a Good Housekeeping:

The following good housekeeping practices will be followed on-site during the construction period:

- An effort will be made to store only enough product required to do the immediate job.
- All materials stored on-site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under proper cover and palletized.
- Liquid products will be placed on secondary containment pallets.
- Fuel tanks will be double walled.
- Drip pans will be used under all spigots unless on secondary containment.
- Products will be kept in their original containers with the original manufacturers' label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The site superintendent will inspect daily to ensure proper use and disposal of materials.
- Concrete washout will only be allowed in designated areas. The hardened waste will be disposed of weekly and before final inspection of the project.

6.1.b Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials:

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets will be retained.
- If surplus product must be disposed of, manufacturers', or local and State recommended methods for proper disposal will be followed.
- Products will be monitored, an inventory will be conducted regularly, and documentation of all use and disposal will be maintained.

6.2 Product Specific Practices:

The following product specific practices will be followed on-site:

6.2.a Petroleum Products:

All on-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce any chance of leakage. Petroleum products will be stored in tightly-sealed containers which are clearly labeled. Any petroleum substances used on-site will be applied according to the manufacturer's recommendations. Spills and leaks from vehicles will be stopped immediately. Any leaking vehicle will have a drip pan placed under the leak until the unit is repaired. Secondary containment will be provided for all petroleum products stored onsite.

6.2.b Fertilizers, Herbicide, Pesticide, Soil Treatment:

All materials used will be applied only in the minimum amounts recommended by the manufacturer or as per specification. Once applied, materials will be worked into the soil to limit exposure to
On-site storage will be covered and palletized to limit contact with storm water. The contents of any partially-used bags or containers will be transferred to a sealable plastic bin to avoid spills.

6.2.c Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm drain system or on the ground but will be properly disposed of according to manufacturers’ instructions or State and local regulations.

6.2.d Concrete Trucks:

Concrete trucks will not be allowed to wash out or discharge surplus concrete or dump wash water other than in a designated wash-out area. The hardened waste will be disposed of weekly and before final inspection of the project.

6.3 Spill Prevention Practices:

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers’ recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area on-site. Equipment and materials will include, but not be limited to, brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically designed for this purpose.
- All spills will be cleaned up immediately after discovery using dry cleanup methods.
- The spill area will be kept well-ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size—ADEQ Hotline: (602) 771-4505; City of Phoenix Hazardous Spills Emergency: 911; City of Phoenix Hazardous Spills Safety Section: (602) 262-7555.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and procedures to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- The site superintendent will be responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. He will designate other site personnel who will receive spill prevention and cleanup training.

6.4 Documentation:

Documentation of all inspections, failed BMP’s, corrective action and training will be maintained onsite with the SWPPP at all times during the project and will be maintained for not less than three (3) years after the project is complete.
OTHER REQUIRED CERTIFICATIONS

The Contractor will complete and submit the following certification forms to the City before construction begins:

- Permitee Certification
- Contractor Certification
- Subcontractor Certification (for all Subcontractors as necessary)
- Operator’s Compliance Evaluation Report
PERMITTEE’S CERTIFICATION

As Contractor of the SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2 project, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

__________________________________________
Company

Name: ______________________________________

Title: ______________________________________

Signature: _________________________________

Date: ________________________________
CONTRACTOR CERTIFICATION

I certify under penalty of law that I understand the terms and condition of the General Arizona Pollutant Discharge Elimination System (AZPDES) Permit that authorizes the storm water discharges associated with industrial activities from the construction site identified as part of this certification. Further, by my signature, I understand that I am becoming a co-permittee, along with the subcontractors signing such certifications, to the general (AZPDES) Permit for the storm water discharges associated with construction activities of the SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2 project. As a co-permittee, I understand that I, and my company, are legally required under the Clean Water Act, to ensure compliance with the terms and conditions of the storm water pollution prevention plan developed under the AZPDES Permit and the terms of the AZPDES Permit.

General Contractor and Responsibility

Name: ________________________________

Title: ________________________________

Signature: ____________________________
SUBCONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the General Arizona Pollutant Discharge Elimination System (AZPDES) Permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification. Further, by my signature, I understand that I am becoming a co-permittee, along with the owner(s) and other contractors and subcontractors signing such certifications, to the general AZPDES permit for the storm water discharges associated with construction activities of the SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2 project. As a co-permittee, I understand that I, and my company, are legally required under the Clean Water Act, to ensure compliance with the terms and conditions of the storm water pollution prevention plan developed under the AZPDES permit and the terms of the AZPDES permit.

Authorized Representative of Subcontractor: ___________________________________________
Signature: ___________________________ Date: ___________________________

For (Subcontractor Name): ____________________________________________________________

Construction Activities: __________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

Verification of Completion and Acceptance of Subcontractor's Work

All work to be performed by ______________________________________ (Subcontractor) as part of the _____________________________ (Project) has been completed and accepted. Execution of this form absolves said subcontractor from liability for AZPDES violations which may occur subsequent to this date as a result of activities of the general contractor or other subcontractors.

Authorized Representative of Subcontractor: ___________________________________________
Signature: ___________________________ Date: ___________________________

For (Subcontractor Name): ____________________________________________________________

Verified by (General Contractor): ______________________________________________________

Authorized Representative of General Contractor: _________________________________________
Signature: ___________________________ Date: ___________________________
AZG-2008-001 General Permit for Construction Activities
Operator’s Compliance Evaluation Report

This project requires inspection of storm water pollution controls (BMPs) on a choice of frequency described in the General Permit, Part IV. H. Attach sheets if more space is needed.

Project: __________________________________________________________________ Date: ______________

Name & Title of Inspector: ________________________________________________________________________

Qualifications of Inspector: □ Attached; or □ Shown in Sec. _________ of the SWPPP.

□ Periodic Inspection; or □ Rain Event inspection
Relevant weather information: ____________________________________________________________

1. Location(s) of discharge from the site: □ None; or □ Description: ____________________________
________________________________________________________________________________________

2. Location(s) of and identification of BMPs that need to be maintained; failed to operate or proved to be inadequate:
□ None; or □ Description: ____________________________________________________________
________________________________________________________________________________________

3. Location(s) where additional BMPs are needed: □ None; or □ Description: ______________________
________________________________________________________________________________________

4. Corrective actions required, including changes and target dates: □ None; or □ Description: ____________
________________________________________________________________________________________

5. Identify all sources of non-storm water and the associated pollution control measures: □ None; or □
Description: ____________________________________________________________
________________________________________________________________________________________

6. Identify material storage areas and evidence of, or potential for pollutant discharge from these areas: □ None; or □
Description: ____________________________________________________________
________________________________________________________________________________________
7. Identify any other apparent incidents of non-compliance: □ None; or □ Description: ______________________
_____________________________________________________________________________________________

8. If no incidents of non-compliance are identified in items 1 through 7 above, the inspector certifies that the
construction project is being operated in compliance with the SWPPP and the General Permit.

    I certify under penalty of law, that this document and all attachments were prepared under my direction or
    supervision in accordance with a system designed to assure that qualified personnel properly gathered and
    evaluated the information submitted. Based on my inquiry of the person or persons who manage the system,
    or those persons directly responsible for gathering information, the information submitted is, to the best of my
    knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for
    submitting false information, including the possibility of fine and imprisonment for knowing violations.

Certifying Signature: ___________________________ Date: ___________________

Printed Name: ___________________________
A. General Information

This document is an aid to understanding the terms and conditions of your nationwide permit (NWP) by bringing together information issued separately in; (1) the Federal Register (82 FR 1860-2008)*, (2) the Special Public Notice for NWP "Reissuance of the Nationwide Permits and Issuance of Final Regional Conditions for the Los Angeles District"*, and (3) the Clean Water Act Section 401 water quality certification decisions (401 WQCs)* issued by the White Mountain Apache Tribe, Hopi Tribe, Hualapai Tribe, Navajo Nation, U.S. Environmental Protection Agency, and Arizona Department of Environmental Quality. Please note that website addresses enclosed herein may have been changed and updated since publication of the original document.

1) Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 et seq) the U.S. Army Corps of Engineers (Corps) published the "Issuance and Reissuance of Nationwide Permits" in the Federal Register (82 FR 1860-2008) on January 6, 2017. These NWPs are in effect from March 19, 2017 through March 18, 2022 unless modified, reissued, or revoked before that time. It is incumbent upon the permittee to remain informed of changes to the NWPs.

2) The Los Angeles District of the Corps issued a Special Public Notice (March 22, 2017) announcing final regional conditions for NWPs to ensure protection of high value waters within the State of Arizona.

3) The Los Angeles District of the Corps requested and obtained for the entire State of Arizona the 401 WQC decision for all NWPs on all tribal lands from the White Mountain Apache Tribe, Hopi Tribe, Hualapai Tribe, Navajo Nation, and U.S. Environmental Protection Agency and on all non-tribal lands from the Arizona Department of Environmental Quality.

A description of all NWPs and 401 WQCs can be found in the "Nationwide Permits for Arizona" Special Public Notice.*


Key Sections:
B. Nationwide Permit Terms (page 1)   C. Nationwide Permit General Conditions (page 2)
D. District Engineer’s Decision (page 8)   E. Nationwide Permit Regional Conditions (page 9)
F. 401 Water Quality Certifications (page 10)

B. Nationwide Permit Terms

12. Utility Line Activities. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A “utility line” is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefied, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term “utility line” does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination
with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations.

The areas affected by temporary fills must be revegetated, as appropriate.

**Notification:** The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 32.) (Authorities: Sections 10 and 404)

**Note 1:** Where the utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

**Note 2:** For utility line activities crossing a single waterbody more than one time at separate and distinct locations, or multiple waterbodies at separate and distinct locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

**Note 3:** Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

**Note 4:** Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

**Note 5:** Pipes or pipelines used to transport gaseous, liquid, liquefied, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

**Note 6:** This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

**Note 7:** For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

**Note 8:** For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distinct crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, “District Engineer’s Decision.” The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

### C. Nationwide Permit General Conditions

**Note:** To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for a NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. (e) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the...
2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culvertted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP's 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects from Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. (b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status. (c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA. (c)
Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps. (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWP(s). (e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. (f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permits covers the proposed NWP activity or whether additional ESA section 7 consultation is required. (g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their World Wide Web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively. (Note: Arizona endangered species information is available at http://www.fws.gov/southwest/es/arizona/Threatened.htm#CountyList)

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106. (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. (d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps. (e) Prospective permittees should be aware that section 110(k) of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally
significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment. (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal: (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site). (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal. (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)). (e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area alone along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimizing or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses. (f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332. (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permitting-resource responsible mitigation. (2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)). (3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permitting-resource responsible mitigation. (4) If permitting-resource responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). (5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(e)(1)(ii)). (g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For
example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs. (h) Permits may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management. (i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner, by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include: (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions; (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(f)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.
32. Pre-Construction Notification  
(a) Timing: Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either: (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or (2) 45 calendar days have passed from the district engineer’s receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee’s right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information: (1) Name, address and telephone numbers of the prospective permittee; (2) Location of the proposed activity; (3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity; (4) A description of the proposed activity; the activity’s purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters; for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans); (5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate; (6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan. (7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity.

For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act; (8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act; (9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and (10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity’s compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity’s adverse environmental effects so that they are no more than minimal. (2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic
D. District Engineer’s Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWP 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects. For those NWP that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, 52, or 54), the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects. For those NWP that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the
applicant’s submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

F. Nationwide Permit Regional Conditions

Of the ten regional conditions effective within the Los Angeles District of the Corps, six apply to projects within Arizona (1-4, 9 and 10). The remaining four regional conditions apply to specific geographic areas, resources, or species not located in Arizona. The following regional conditions must be complied with for any authorization by a NWP to be valid in the State of Arizona:

Regional Condition 1. For all activities in waters of the U.S. that are suitable habitat for federally listed fish species, including designated critical habitat for such species, the permittee shall design all new or substantially reconstructed linear transportation crossings (e.g. roads, highways, railways, trails, bridges, culverts) to ensure that the passage and/or spawning of fish is not hindered. In these areas, the permittee shall employ bridge designs that span the stream or river, including pier- or pile-supported spans, or designs that use a bottomless arch culvert with a natural stream bed, unless determined to be impracticable by the Corps.

Regional Condition 2. Nationwide Permits (NWP) 3, 7, 12-15, 17-19, 21, 23, 25, 29, 35, 36, or 39-46, 48-54 cannot be used to authorize structures, work, and/or the discharge of dredged or fill material that would result in the "loss" of wetlands, mudflats, vegetated shallow waters or riffle and pool complexes as defined in 40 CFR Part 230,40-45. The definition of "loss" for this regional condition is the same as the definition of "loss of waters of the United States" used for the Nationwide Permit Program. Furthermore, this regional condition applies only within the State of Arizona and within the Mojave and Sonoran (Colorado) desert regions of California. The desert regions in California are limited to four USGS Hydrologic Unit Code (HUC) accounting units (Lower Colorado -150301, Northern Mojave-180902, Southern Mojave-181001, and Salton Sea-181002).

Regional Condition 3. When a pre-construction notification (PCN) is required, the appropriate U.S. Army Corps of Engineers (Corps) District shall be notified in accordance with General Condition 32 using either the South Pacific Division PCN Checklist or a signed application form (ENG Form 4345) with an attachment providing information on compliance with all the General and Regional Conditions. The PCN Checklist and application form are available at: http://www.spl.usace.army.mil/Missions/Regulatory/PermitProcess.aspx. In addition, unless specifically waived by the Los Angeles District, the PCN shall include: a) A written statement describing how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States; b) Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity as well as the location of delineated waters of the U.S. on the site. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and area (in acres) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the mean high water mark and high tide line, should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation. All drawings shall follow the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (Feb 2016), or most recent update (available at the South Pacific Division website at: http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences.aspx); c) Numbered and dated pre-project color photographs showing a representative sample of waters proposed to be impacted on the project site, and all waters proposed to be avoided on and immediately adjacent to the project site. The compass angle and position of each photograph shall be documented on the plan-view drawing required in subpart b of this regional condition. d) Delineation of aquatic resources in accordance with the current Los Angeles District’s Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (available at: http://www.spl.usace.army.mil/Missions/Jurisdictional-Determination/).

Regional Condition 4. Submission of a PCN pursuant to General Condition 32 and Regional Condition 3 shall be required for specific regulated activities in the following locations: a) All perennial waterbodies and special aquatic sites throughout the Los Angeles District as well as intermittently waters within the State of Arizona for any regulated activity that would result in a loss of waters of the United States. The definition of “loss of waters of the United States” for this regional condition is the same as the definition used for the Nationwide Permit Program. b) All areas designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council, and that would result in an adverse effect to EFH, in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. EFH Assessment Guidance and other supporting information can be found at: http://www.westcoast.fisheries.noaa.gov/habitat/fish_habitat/efh_consultations_go.html. c) All watersheds in the Santa Monica Mountains in Los Angeles and Ventura counties bounded by Calleguas Creek on the west, by Highway 101 on the north and east, and by Sunset Boulevard and Pacific Ocean on the south. d) The Santa Clara River watershed in Los Angeles and Ventura counties, including but not limited to Aliso Canyon, Agua Dulce Canyon, Sand Canyon, Bouquet Canyon, Mint Canyon, South Fork of the Santa Clara River, San Francisquito Canyon, Castaic Creek, Piru Creek, Sespe Creek and the main-stem of the Santa Clara River. e) The Murrieta and Temecula Creek watersheds in Riverside County, California for any regulated activity that would result in a loss of waters of the U.S. The definition of “loss of waters of the United States” for this regional condition is the same as the definition used for the Nationwide Permit Program. f) All waterbodies designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council, and that would result in an adverse effect to EFH, in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. EFH Assessment Guidance and other supporting information can be found at: http://www.westcoast.fisheries.noaa.gov/habitat/fish_habitat/efh_consultations_go.html. e) All watersheds in the Santa Monica Mountains in Los Angeles and Ventura counties bounded by Calleguas Creek on the west, by Highway 101 on the north and east, and by Sunset Boulevard and Pacific Ocean on the south. d) The Santa Clara River watershed in Los Angeles and Ventura counties, including but not limited to Aliso Canyon, Agua Dulce Canyon, Sand Canyon, Bouquet Canyon, Mint Canyon, South Fork of the Santa Clara River, San Francisquito Canyon, Castaic Creek, Piru Creek, Sespe Creek and the main-stem of the Santa Clara River. e) The Murrieta and Temecula Creek watersheds in Riverside County, California for any regulated activity that would result in a loss of waters of the U.S. The definition of “loss of waters of the United States” for this regional condition is the same as the definition used for the Nationwide Permit Program. f) All waterbodies designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council, and that would result in an adverse effect to EFH, in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. EFH Assessment Guidance and other supporting information can be found at: http://www.westcoast.fisheries.noaa.gov/habitat/fish_habitat/efh_consultations_go.html. g) All waterbodies designated by the Arizona Department of Environmental Quality as Outstanding Arizona Waters (OAWs), within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of a designated OAW, and on tributaries to OAWs within 1600 meters of the OAW (see http://www.azdeq.gov/index.html). g) All waterbodies designated by the Arizona Department of Environmental Quality as Outstanding Arizona Waters (OAWs), within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of a designated impaired surface water, and on tributaries to impaired waters within 1600 meters of the impaired water (see http://www.azdeq.gov/index.html).

Regional Condition 9. Any requests to waive the applicable linear foot limitations for NWPs 13, 21, 29, 39, 40 and 42, 43, 44, 51, 52, and 54, must include the following: a) A narrative description of the affected aquatic resource. This should include known information on: volume and duration of flow; the approximate length, width, and depth of the waterbody and characters observed associated with an Ordinary High Water Mark (e.g. bed and bank, wrack line, or scour marks) or Mean High Water Line; a description of the adjacent vegetation.
community and a statement regarding the wetland status of the associated vegetation community (i.e. wetland, non-wetland); surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information. b) An analysis of the proposed impacts to the waterbody in accordance with General Condition 32 and Regional Condition 3; c) Measures taken to avoid and minimize losses, including other methods of constructing the proposed project; and d) A compensatory mitigation plan describing how the unavoidable losses are proposed to be compensated, in accordance with 33 CFR Part 332.

Regional Condition 10. The permittee shall complete the construction of any compensatory mitigation required by special condition(s) of the NWP verification before or concurrent with commencement of construction of the authorized activity, except when specifically determined to be impracticable by the Corps. When mitigation involves use of a mitigation bank or in-lieu fee program, the permittee shall submit proof of payment to the Corps prior to commencement of construction of the authorized activity.

F. 401 Water Quality Certification (401 WQC)

A 401 WQC is mandatory for any activity that requires a Clean Water Act Section 404 permit. A 401 WQC is required prior to discharging any dredged or fill material into a water of the United States. Only one of the following 401 WQCs listed below will apply to your project. The geographical location of your project will determine which 401 WQC is applicable. The 401 WQCs issued for this NWP will remain in effect through March 18, 2022.

On all "Non-Tribal Lands", lands that are not part of federally recognized Indian Reservation, the Arizona Department of Environmental Quality (ADEQ) is the agency responsible for issuing the 401 WQC.

On all "Tribal Lands”, lands that are part of a federally recognized Indian Reservation, the U.S. Environmental Protection Agency (EPA) is responsible for issuing the 401 WQC except where EPA has delegated the 401 WQC authority to the White Mountain Apache Tribe (Fort Apache Indian Reservation), Hopi Tribe (Hopi Indian Reservation), Hualapai Tribe (Hualapai Indian Reservation), or Navajo Nation (Navajo Indian Reservation).

If "Individual Certification" is required you must apply for, receive, and comply with the 401 WQC issued by ADEQ, EPA, or the appropriate Tribe.

Non-tribal Lands - 401 ADEQ WQCs*

ADEQ 401 WQC definitions:

Not Attaining Waters are surface waters that are identified pursuant to CWA Section 305(b) as not attaining (e.g. not meeting surface water quality standards) and as a result, merit special consideration. The current list of Not Attaining Waters (Category 4A, 4B and 4C) is available on the ADEQ website at www.azdeq.gov.

Native Fill means soil, sand, gravel and other natural materials that are similar in physical, chemical and biological composition to existing natural materials in the project area; and which are free from pollutants in quantities and concentrations that can cause or contribute to an exceedance of applicable Surface Water Quality Standards (SWQS).

ADEQ requires that an applicant submit an application to ADEQ for a Water Quality Certification if the proposed activity will occur within the ordinary high water mark of any of the following: An Outstanding Arizona Water; an impaired water; a water that is listed as not attaining; or a lake.

The following 401 water quality conditions apply to regulated discharges of dredged or fill material occurring within the ordinary high water mark (OHWM) of Waters of the US (WUS) under all applicable NWPs (hereinafter referred to as "certified activities"):  

1. Submission of a PCN pursuant to General Condition 32 and Regional Condition 3 shall be required for all waterbodies designated by ADEQ as Not Attaining, within 1600 meters (or 1 mile) upstream and/or 800 meters (or 1/2 mile) downstream of a not attaining water.
2. Any discharge occurring as a result of certified activities of the project shall not cause an exceedance of any Surface Water Quality Standard (SWQS). Applicability of this condition is as defined in A.A.C. R18-11-102.
3. This certification does not authorize the discharge of wastewater, process residues or other waste to any WUS.
4. Runoff of water used for irrigation or dust control for certified activities within WUS shall be limited to the extent practicable and shall not cause downstream erosion, flooding or an exceedance of applicable surface water quality standards (SWQS) in any WUS.
5. Clearing, grubbing, scraping or otherwise exposing erodible surfaces in WUS shall be minimized to the extent necessary for each construction phase or location.
6. Dredged or fill material in WUS shall be placed so that it is stable, meaning after placement, the material does not show signs of excessive erosion, such as gullying, head cutting, caving, block slippage, material sloughing, etc. Dredged or fill material placed in WUS shall not discharge (e.g., via leaching, runoff) pollutants into streams or wetlands at levels exceeding any applicable SWQS.
7. The effectiveness of all pollution control measures, including sediment and erosion control measures, shall be inspected, maintained and modified (as necessary) to reduce pollutants and ensure compliance with SWQS in any WUS.
8. Except where certified activities are intended to permanently alter any WUS, all disturbed areas within WUS shall be restored and (re)vegetated or stabilized. Vegetation shall be maintained on unarmored banks and slopes to stabilize soil and prevent erosion.
9. Silt laden or turbid water resulting from certified activities shall managed in a manner to reduce sediment load prior to discharging so as not to exceed SWQS in any WUS.
10. Any washing or dewatering of fill material must occur outside of any WUS prior to placement.
11. Acceptable fill material that can be placed in any WUS includes: untreated logs and lumber; natural stone (crushed or not), crushed clean concrete (recycled concrete); native fill; precast, sprayed or cast-in-place concrete (including soil cement and unmodified grouts); steel (including galvanized); plastic; aluminum; and other material that is free from pollutants in quantities or combinations that can cause an exceedance of applicable SWQS. Other fill materials may be placed in WUS with prior written approval from ADEQ.
12. Upon completion of the certified activities, areas within any WUS shall be promptly cleared of all forms, pilings, construction residues, equipment, debris and other obstructions, including temporary structures.

13. If fully, partially or occasionally submerged structures in WUS are constructed of cast-in-place concrete instead of pre-cast concrete, applicant will take steps; e.g., sheet piling or temporary dams, to prevent contact between water (instream and runoff) and the concrete until it cures and until any curing agents have evaporated or otherwise cease to be available; i.e., are no longer a pollutant source.

14. Any permanent WUS crossings other than fords, shall be equipped with conveyances that direct untreated runoff away from WUS.

15. Permanent and temporary pipes and culvert crossings in WUS shall be adequately sized to handle expected flow and properly set with end section, splash pads, headwalls or other structures that dissipate water energy to control erosion.

16. Debris will be cleared as needed from culverts, ditches, dups and other drainage structures in any WUS to prevent clogging or conditions that may lead to washout.

17. All temporary structures in WUS constructed of imported materials and all permanent structures, including but not limited to, access roadways; culvert crossings; staging areas; material stockpiles; berms, dikes and pads, shall be constructed so as to accommodate overtopping and resist washout by streamflow.

18. Any temporary WUS crossing, other than fords on native material, shall be constructed in such a manner so as to provide armoring of the stream channel. Materials used to provide this armoring shall not include anything easily transportable by flow.

**Tribal Lands - 401 WQCs**

- Fort Apache Indian Reservation (White Mountain Apache Tribe): Individual Certification required for all projects.*
- Hopi Indian Reservation (Hopi Tribe): Individual Certification required for all projects.*
- Hualapai Indian Reservation (Hualapai Tribe): Individual Certification required for all projects.*
- Navajo Indian Reservation (Navajo Nation): Individual Certification required for all projects.*
- All other Indian Reservations (EPA): 401 WQCs issued by EPA: Contact PM

**401 WQC Contact Information**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization</th>
<th>Phone</th>
<th>Fax</th>
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</tr>
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<tr>
<td>Elizabeth Goldmann</td>
<td>Region IX - U.S. Environmental Protection Agency</td>
<td>San Francisco, California 94105</td>
<td>415-972-3398</td>
<td>415-747-3537</td>
<td><a href="mailto:Goldmann.Elizabeth@epa.gov">Goldmann.Elizabeth@epa.gov</a></td>
</tr>
<tr>
<td>Lee Anna Silversmith</td>
<td>Water Quality Program - Navajo Nation Environmental Protection Agency</td>
<td>Window Rock, Arizona, 86515</td>
<td>928-871-7700</td>
<td>928-871-7996</td>
<td><a href="mailto:leecynthia09@yahoo.com">leecynthia09@yahoo.com</a></td>
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<tr>
<td>Lionel Puhuyesva</td>
<td>Water Resources Program - Hopi Tribe</td>
<td>Kykotsmovi, Arizona 86309</td>
<td>928-734-3711</td>
<td>928-734-3609</td>
<td><a href="mailto:lpuhuyesva@hopi.nsn.us">lpuhuyesva@hopi.nsn.us</a></td>
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<tr>
<td>Alex Cabillo</td>
<td>Water Resource Program Manager - Hualapai Dept. of Natural Resources</td>
<td>Peach Springs, Arizona 86434</td>
<td>928-769-2254</td>
<td>928-769-2309</td>
<td><a href="mailto:acabillo@hotmail.com">acabillo@hotmail.com</a></td>
</tr>
<tr>
<td>Daniel Pusher</td>
<td>Water Resources - White Mountain Apache Tribe</td>
<td>Ft. Apache, Arizona 85926</td>
<td>928-338-2472</td>
<td>928-338-3933</td>
<td><a href="mailto:DanielPusher@wmat.us">DanielPusher@wmat.us</a></td>
</tr>
<tr>
<td>Laurie (Rosi) Sherrill</td>
<td>Water Quality Division - Arizona Department of Environmental Quality</td>
<td>Phoenix, Arizona 85007</td>
<td>602-771-4409</td>
<td>Not available</td>
<td><a href="mailto:Sherrill.Laurie@azdeq.gov">Sherrill.Laurie@azdeq.gov</a></td>
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BID PROPOSAL  
CITY OF PHOENIX, ARIZONA  
OFFICE OF THE CITY ENGINEER  
PROJECT TITLE: SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE -  
PHASE 2  
PROJECT NO.: WS90500298  
BOND ISSUE OR BUDGET PROJECT

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

(Print or Type Contractor Name)

Having examined the contract 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 contract 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 will be in accordance with all applicable Maricopa Association of Governments’ (MAG) Uniform Standard Specifications and Uniform Standard Details, latest revision, the City of Phoenix Supplements, latest revision to the MAG Uniform Standard Specifications and Details, and ADOT plans and specifications provided with the bid package, except as otherwise required by the project plans and specifications.

No proposal may be withdrawn for a period of 50 days after opening without consent of the Contracting Agency through the body or agent duly authorized to accept or reject the proposal except in the case of federally-assisted projects.

Understands that his proposal will be submitted with a proposal guarantee of cash, certified check, cashier’s check or surety bond for an amount not less than ten (10) percent of the amount bid, as referenced in the Call for Bids.

Agrees that upon receipt of Notice of Award, from the City of Phoenix, he will execute the contract documents within 10 calendar days.

Work will be substantially complete within 300 calendar days and final completion within 330 days, beginning with the day following the starting date specified in the Notice to Proceed. The time allowed for completion of the work includes lead time for obtaining the necessary materials and/or equipment and approvals.

The bidder will acknowledge all addenda in writing. By writing the addendum number(s) below, the bidder agrees that this proposal is computed with consideration of the specification book(s) plus any addenda.

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P. - 1

STD DCM Standard MAG Boilerplate  
Boilerplate Revision 8/18
### City of Phoenix

#### BID PROPOSAL

**PROJECT TITLE:** SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2  
**PROJECT NO.:** WS90500298

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<td>7</td>
<td>M4011901</td>
<td>Traffic Control Devices</td>
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<td>8</td>
<td>M4200035</td>
<td>Woven Wire Fence, ADOT Detail C-12.10, Type 2</td>
<td>L.F.</td>
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<td>9</td>
<td>M6151015</td>
<td>15&quot; Vitrified Clay Pipe</td>
<td>L.F.</td>
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<td>10</td>
<td>M6153000</td>
<td>Construct Water or Sanitary Sewer Encasement, per plans</td>
<td>L.F.</td>
<td>720</td>
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<td>11</td>
<td>M6257001</td>
<td>Construct 5-Foot Diameter Polymer Sanitary Sewer Manhole, Per MAG Detail 420 and 423</td>
<td>Each</td>
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<td>12</td>
<td>M6257001</td>
<td>Construct 5-Foot Diameter Polymer Sanitary Sewer Manhole, Watertight, Per MAG Detail 420 and 424</td>
<td>Each</td>
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<td>13</td>
<td>M6257000</td>
<td>Connection to Existing Sewer Lines and Manholes</td>
<td>Each</td>
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<td>14</td>
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<td>Drop Sewer Connection, MAG Standard Detail 426</td>
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**Total Base Bid**

__________________________________________________________ and ______________________/100

TOTAL WRITTEN IN WORDS
PROPOSAL SUBMITTAL

PROJECT TITLE: SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE – PHASE 2 PROJECT: WS90500298

THIS PROPOSAL IS SUBMITTED BY

__________________________________________________________________________________________________

a corporation organized under the laws of the State of 

a partnership consisting of 

a joint venture consisting of 

or individual trading as 


of the City of 


FIRM 

ADDRESS 

CITY STATE ZIP CODE 

PHONE VENDOR NO. 

BY 

Officer and Title (signature) 

Officer and Title (print or type) 

Date 

WITNESS: If Contractor is an individual 

(signature) 

ATTEST: If Contractor is Corporation or Partnership 

(signature and title)
SURETY BOND

City of Phoenix Project No.: WS90500298

That we, ____________________________________________, as Principal, (hereinafter called the Principal) and the ____________________________________________, a corporation duly organized under the laws of the State of ____________________________________________, as Surety, (hereinafter called the Surety) are held and firmly bound unto the City of Phoenix as Obligee, in the sum of ten (10) percent of the total amount of the bid of Principal, submitted by him to the City of Phoenix for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents and in conformance with A.R.S. #34-201.

WHEREAS, the said Principal is herewith submitting its proposal for **SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2**

NOW, THEREFORE, if the City of Phoenix will accept the proposal of the Principal and the Principal will enter into a contract with the City of Phoenix in accordance with the terms of such proposal and give such Bonds and Certificates of Insurance as specified in the Standard Specifications with good and sufficient Surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter into such contract and give such Bonds and Certificates of Insurance, if the Principal will pay to the City of Phoenix 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 will be null and void, otherwise to remain in full force and effect.

Signed and sealed this _______ day of _______________________________________ A.D., 2018

Principal

Title

Mailing Address

Surety

WITNESS:

A.M. BEST RATING:
CITY OF PHOENIX  
LIST OF MAJOR SUBCONTRACTORS AND SUPPLIERS  

PROJECT: WS90500298  PROJECT TITLE: SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2  

<table>
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<th>DESCRIPTION OF WORK OR MATERIALS (CONTRACTOR TO ENTER TRADE/SUPPLIER AREAS)</th>
<th>SELF-PERFORMED BY PRIME CONTRACTOR</th>
<th>SUBCONTRACTOR/SUPPLIER COMPANY NAME (IF NOT SELF-PERFORMED)</th>
<th>CONTACT PERSON</th>
<th>PHONE NUMBER</th>
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I hereby certify by signing below that the above listed companies will be utilized to perform work on this project for an amount equal to or greater than 5% of the base bid. These companies will not be removed or replaced without prior written approval by the City of Phoenix Project Manager. The City requires, as in Paragraph D – List of Major Subcontractors and Suppliers in the Information for Bidders that ALL vendors are listed or you will be disqualified. If you are self-performing the work, you must still list any suppliers for materials, or list any contractors that will assist you in any form.  

COMPANY NAME _____________________________________________________ SIGNATURE ____________________________________________  
NAME & TITLE _____________________________________________________ PHONE NUMBER _____________ DATE _________________  
EMAIL ADDRESS _________________________________________________ 

L.O.S. - 1
# CITY OF PHOENIX
## LIST OF ALL SUBCONTRACTORS AND SUPPLIERS

**PROJECT NO.:** WS90500298  
**PROJECT TITLE:** SR202L (PECOS ROAD) SANITARY SEWER: CHANDLER BOULEVARD TO 17TH AVENUE - PHASE 2

### DESCRIPTION OF WORK OR MATERIALS

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<th>SELF-Performed by Prime Contractor</th>
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<th>Contact Person</th>
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</table>

I hereby certify by signing below that the above listed companies will be utilized to perform work on this project. These companies will not be removed or replaced on the project without prior written approval by the City of Phoenix Project Manager. The City requires, as in Paragraph D - List of All Subcontractors and Suppliers in the Information for Bidders that ALL vendors are listed or you will be disqualified. If you are self-performing the work, you must still list any suppliers for materials, or list any contractor’s that will assist you in any form.

COMPANY NAME _____________________________________________________  SIGNATURE _______________________________________________

NAME & TITLE ________________________________________________________  PHONE NUMBER _____________  DATE ________________

EMAIL ADDRESS ________________________________________________

---

L.O.S. - 2
Authorized Contact for this Disclosure Statement

Name: __________________________________________
Title: __________________________________________
E-mail: _________________________________________
Phone number: __________________________________
FAX number: ____________________________________

List any other DBA, trade name, other identity, or EIN used in the last five (5) years, the state or country where filed, and the status (active or inactive): (if applicable):
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

Business Characteristics

Business entity type – Please check appropriate box and provide additional information:

☐ Corporation          Date of incorporation: ______________
☐ Limited Liability Company  Date organized: ______________
☐ Limited Liability Partnership  Date of registration: ______________
☐ Limited Partnership     Date established: ______________
☐ General Partnership    Date established: ______________
☐ Sole Proprietor        How many years in business? __________
☐ Other (explain)        Date Established: ______________

Was the business entity formed in the State of Arizona? Yes_____ No_____ 
If no, indicate jurisdiction where Business Entity was formed: ________________________________________________________________

Is the Business Entity currently registered to do business in Arizona with the Arizona Corporation Commission? Yes_____ No_____ Not required ________ (if sole proprietor or general partnership)

Does the Business Entity have a City of Phoenix business privilege license? Yes_____ No_____ If “no” explain and provide detail such as “not required” or “application in progress” or other reason.

Is the Business Entity publicly traded? Yes_____ No_____ 

Is the responding Business Entity a Joint Venture? Note: If the Submitting Business entity is a Joint Venture, also submit a questionnaire for each Business Entity
comprising the Joint Venture. Yes _____ No _____

Is the Business Entity’s Principal Place of Business/Executive office in Phoenix? If “no” does the Business Entity maintain an office in Phoenix? Yes _____ No _____

Provide the address and phone number for the Phoenix office. ____________________________________________________________

Is the business certified by Phoenix as a Small Business Enterprise? Yes _____ No _____

Identify Business Entity Officials and principal Owners:

Name(s) _________________________________________Title________________________________Percentage ownership ___%(Enter 0% if not applicable).

Name(s) _________________________________________Title________________________________Percentage ownership ___%(Enter 0% if not applicable).

Name(s) _________________________________________Title________________________________Percentage ownership ___%(Enter 0% if not applicable).

Name(s) _________________________________________Title________________________________Percentage ownership ___%(Enter 0% if not applicable).

Affiliates and Joint Venture Relationships

Does the Business entity have any Affiliates? Yes _____ No _____ Attach additional pages if necessary.

Affiliate name:________________________________________________________

Affiliate EIN (if available):____________________________________________

Affiliate’s primary Business Activity:____________________________________

Explain relationship with Affiliate and indicate percent ownership, if applicable. __________________________________________

Are there any Business Entity Officials or Principal Owners that the Business Entity has in common with this Affiliate? _________________

Individual’s name:_____________________________________________________

Position/Title with Affiliate: __________________________________________

Has the Business Entity participated in any joint Ventures within the past three years? Yes _____ No _____

(Attach additional pages if necessary)

Joint Venture Name:____________________________________________________

Joint venture EIN (if applicable):________________________________________

Identify parties to the Joint Venture:____________________________________
Contract History

Has the Business Entity held any contracts with the city of Phoenix in the last three (3) years? Yes_____ No_____ If “yes” attach a list.

Integrity – Contract Bidding

Within the past three (3) years, has the Business Entity or any Affiliate been suspended or debarred from any government contracting process or been disqualified on any government procurement? Yes_____ No_____ 

Been subject to a denial or revocation of a government prequalification? Yes_____ No_____ 

Been denied a contract award or had a bid rejected based upon a finding of a non-responsibility by a government entity? Yes_____ No_____ 

Agreed to a voluntary exclusion from bidding/contracting with a government entity? Yes_____ No_____ 

Initiated a request to withdraw a bid submitted to a government entity or made any claim of an error on a bid submitted to a government entity? Yes_____ No_____ 

Initiated a request to withdraw a bid submitted to a government entity or made any claim of an error on a bid submitted to a government entity? Yes_____ No_____ 

For each “Yes” answer above, provide an explanation of the issues.

Integrity – Contract Award

Within the past three (3) years has the Business Entity or any Affiliate been suspended, cancelled, or terminated for cause on any government contract? Yes_____ No_____ 

Been subject to an administrative proceeding or civil action seeking specific performance or restitution in connection with any government contract? Yes_____ No_____ 

For each “yes” answer, provide an explanation. (Attach explanation on a separate sheet of paper).

Certifications/Licenses

Within the past three (3) years, has the Business Entity or Affiliate had a revocation, suspension, or disbarment of any business or professional permit and/or license? Yes_____ No_____ 

If “yes” provide an explanation of the issue(s), the Business Entity involved, the relationship to the submitting Business Entity, relevant dates, the government entity involved, and any remedial or corrective action(s) taken and the current status of the issues.

Legal Proceedings
Within the past three (3) years, has the Business Entity of any Affiliate:

Been the subject of an investigation, whether open or closed, by any government entity for a civil or criminal violation? Yes____ No_____

Been the subject of an indictment, grant of immunity, judgment or conviction, (including entering into a plea bargain for conduct constituting a crime)? Yes____ No_____

Received any OSHA citation and Notification of Penalty containing a violation classified as serious or willful? Yes_____ No_____

Had a government entity find a willful prevailing wage or supplemental payment violation? Yes_____ No_____

Been involved in litigation as either a plaintiff or a defendant involving a copyright or patent infringement violation or an anti-trust violation? Yes_____ No_____

Other than previously disclosed, for the past three (3) years:

(i) Been subject to the imposition of a fine or penalty in excess of $1000 imposed by any government as a result of the issuance of citation, summons or notice of violation, or pursuant to any administrative, regulatory, or judicial determination? Yes_____ No_____

(ii) Been charged or convicted of a criminal offense pursuant to any administrative and/or regulatory action taken by any government entity? Yes_____ No_____

If “yes” provide an explanation of the issue(s), the Business Entity involved, the relationship to the submitting Business Entity, relevant dates, the government entity involved, and any remedial or corrective action(s) taken and the current status of the issues.

**Leadership Integrity**

If the Business Entity is a joint Venture Entity, answer “N/A – Not Applicable” to questions below:

Within the past three (3) years has any individual previously identified, or any other Business Entity Leader not previously identified, or any individual having the authority to sign, execute, or approve bids, proposals, contracts or supporting documentation with the city of Phoenix been subject to:

A sanction imposed relative to any business or professional permit and/or license? Yes_____ No_____

An investigation, whether open or closed, by any government entity for a civil or criminal violation for any business-related conduct? Yes_____ No_____

B.D.S.-4

STD DCM MAG BOILERPLATE

Boilerplate Revision 8/18
City of Phoenix

AFFIDAVIT OF IDENTITY

Your completion of this form is required by Arizona state law. A.R.S §§ 1-501 and -50 only if you are a sole proprietor.

I, ________________________________________________(print full name exactly as on document), hereby affirm, upon penalty of perjury, that I presented the document marked below to the City of Phoenix, that I am lawfully present in the United States, and that I am the person stated on the document. (select one category only)

☐ Arizona driver license issued after 1996.
   Print first four numbers/letters from license:

☐ Arizona non-operating identification license.
   Print first four numbers/letters:

☐ Birth certificate or delayed birth certificate issued in any state, territory or possession of the U.S.
   Year of birth: ____________; Place of birth: ______________________________________

☐ United States Certificate of Birth Abroad.
   Year of birth: ____________; Place of birth: ______________________________________

☐ United States Passport.
   Print first four numbers/letters on Passport:

☐ Foreign Passport with United States Visa.
   Print first four numbers/letters on Passport:
   Print first four numbers/letters on Visa:

☐ I-94 Form with a photograph.
   Print first four numbers on I-94:

   Print first four numbers/letters on EAD:
   or Perm. Resident Card (acceptable alternative):

☐ Refugee Travel Document.
   Date of issuance: _______________; Refugee country: _________________________

☐ U.S. Certificate of Naturalization.
   Print first four digits of CIS Reg. No.:

☐ U.S. Certificate of Citizenship.
   Date of issuance: _______________; Place of issuance: _________________________

☐ Tribal Certificate of Indian Blood.
   Date of issuance: _______________; Name of tribe: _________________________

☐ Tribal or Bureau of Indian Affairs Affidavit of Birth.
   Year of birth: ____________; Place of birth: _________________________

Signed: _____________________________ Dated: __________________
TECHNICAL SPECIFICATIONS

1. Polymer concrete manholes shall be per City of Phoenix, MAG Standard Specification 625 and as amended by the following:

ACID RESISTANT POLYMER STRUCTURES

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

1. Provide all labor, materials, equipment and incidentals as shown on the Contract Drawings, specified, and required to design, furnish and install acid resistant manholes intended for use in sanitary sewer systems.

2. Design, construction, testing, and commissioning of acid resistant manholes and related work including foundations, mechanical, and appurtenances.

B. General:

1. Manholes shall conform in shape, size, dimensions, material, and other respects to the details shown on the Drawings or as directed by ENGINEER.

2. Excavation and backfill required to install acid resistant manholes shall conform to the requirements of SECTION 206 STRUCTURE EXCAVATION AND BACKFILL.

1.2 QUALITY ASSURANCE

A. Reference Standards: Comply with the applicable provisions and recommendations of the following, unless otherwise shown or specified:

1. ASTM C 33 Standard specification for concrete aggregates

2. ASTM C 33 Standard specification for concrete aggregates

3. ASTM C 443 Standard specification for joints for concrete pipe and manholes using rubber gaskets.


5. ASTM C497 Test methods for concrete pipe, manhole sections, or tile.

6. ASTM D648 Test method for deflection temperature of plastics under flexural load in edgewise position.

7. ASTM C857 Standard practice for minimum structural design loading for underground utility structures.

8. ASTM C923 Standard specifications for resilient connectors between concrete manholes structures and pipe.
10. ASTM D 2584 Test method for ignition loss of cured reinforced resins.
11. AASHTO LRFD Bridge design specifications.

B. Field Measurements

1. The CONTRACTOR shall field verify manhole information shown and submit certified field measurements for acceptance prior to fabrication of manhole precast base and components. Measurements shall be provided for each manhole to be constructed. Measurements shall be of sufficient accuracy to fabricate manholes and make connections to existing or installed pipe without the use of fittings, or other devices to change the horizontal or vertical alignment unless otherwise shown.

2. Field measurements shall include but not be limited to:
   i. Name of person taking measurements, company, and date
   ii. Depth of manhole grade to rim and rim to invert for each pipe connection
   iii. Connection angle measured from the outlet pipe, clockwise to each pipe connection
   iv. Any additional measurements required by the manhole manufacturer.

1.3 SUBMITTALS

A. Shop Drawings: Submit for approval the following:

1. Drawings shall include station number, manhole number, location, rim and invert elevations, materials, dimensions, structural elements, reinforcing details, joint details, base slab and top slab, stubs or openings for connections, and component parts.

2. Summary of criteria used in manhole design including as a minimum, material properties, loadings, load combinations, and dimensions. Include certification from manufacturer that acid resistant polymer manhole design meets or exceeds the load and strength requirements of ASTM C 478 and ASTM C 857. Include design basis, loads and load combinations and results.

3. Manufacturer’s reports including documentation of required tests, inspections, certifications and qualifications.

4. Frames, grates, rings, and covers.

5. Materials used in fabricating drop connections.

6. Materials used for pipe connections at manhole walls.

7. Materials for stubs and stub plugs, if required.

8. Materials for pipe penetration patch work.

10. Submit calculations demonstrating manholes greater than 20 feet deep meet the design criteria and established design standards. Design drawings and calculations shall be sealed by a professional engineer registered in the State of Arizona.

1.4 QUALIFICATIONS

Manufacturer of polymer manholes and related discharge structure shall employ manufacturing methods and material formulation in use for a minimum of 10 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Armorock

B. US Composites Pipes, Inc.

2.2 ACID RESISTANT POLYMER STRUCTURES-ARMOROCK

A. Manholes:

   1. The manholes shall be designed to resist all soil and hydraulic pressures, including both lateral pressure and hydraulic uplift. Components shall be designed for a minimum lateral saturated soil pressure of 120 pounds per square foot per foot of depth, a minimum unbalanced live load surcharge on surrounding soil of 250 pounds per cubic foot, an H-20 wheel loading, and an impact allowance of 15 percent.

   2. Acid resistant polymer manhole and wet well sections, manhole and wet well risers, transition slabs, conical tops, grade rings, base sections and related components shall be designed by the manufacturer to meet the intent of ASTM C 478 with allowable compositional and sizing differences required by a polymer product.

   3. Provide base riser section with integral floors, unless shown otherwise.

   4. Provide riser sections joined with bell and spigot / ship-lap design seamed with butyl mastic so that on assembly, manhole base, riser and top section make a continuous and uniform structure.

   5. Construct riser sections for polymer manholes from standard polymer manhole sections of the diameter indicated on Drawings.

   6. Use various lengths of manhole and wet well sections in combination to provide correct height with the fewest joints.

   7. Design wall sections for depth and loading conditions with wall thickness as required by polymer manufacturer.

   8. Provide tops to support HL-93 vehicle loading and receiving cast iron frame covers as indicated on Drawings.

   9. Elastomeric Gaskets: Gaskets shall be suitable for the service intended. All gaskets shall meet the requirement of ASTM C 443.
10. The dimensions of the manholes shall be as shown on the Drawings.

B. Design

1. Polymer Mixture - the mixture shall consist solely of thermosetting resin sand and aggregate. No cementitious materials will be allowed. Resin content shall be a minimum of 7% by weight.

2. Filler: All aggregate, sand and quartz powder shall meet the requirements of ASTM C 33, where applicable.

3. Additives: Resin additives, such as curing agents, pigments, dyes, fillers and thixotropic agents, when used, shall not be detrimental to the manhole.

4. The required wall thickness for all members shall be that stated by the polymer manufacturer based upon loading conditions and material properties. The wall thickness of risers and conical tops shall be not less than that prescribed by the manufacturer’s design by more than 5%. A wall greater than the prescribed design shall not be cause for rejection.

5. Thermosetting Resin - The resin shall have a minimum of deflection temperature of 158° F when tested at 264 psi (1.820 mPa) following Test Method D 648. The resin content shall not be less than 7% of the weight of the sample as determined by test method D 2584. Resin selection shall be suitable for applications in the corrosive conditions sanitary sewer wastewater which the structures will be exposed.

6. Each manhole component shall be free of all defects, including indentations, cracks, foreign inclusions and resin starved areas that, due to their nature and degree or extent, detrimentally affect the strength and serviceability of the component part. The internal diameter of manhole components shall not vary more than 1%. Variations in height of two opposite sides of risers and conical tops shall not be more the 5/8 inch. The under run in height of a riser or conical top shall not be more than 1/4 inch per foot of height with a maximum of ½ inch in any one section.

7. Marking and Identification - Each manhole shall be marked on the inside and outside with the following information - Manufacturer’s name or trademark, Manufacturer’s location and Production Date.

8. Manhole joints shall be assembled with a bell/spigot or shiplap butyl mastic joint so that on assembly, manhole and wet well base, riser and top section make a continuous and uniform structure. Joint sealing surfaces shall be free of dents, gouges and other surface irregularities that would affect joint integrity.

9. Minimum clear distance between two wall penetrations shall be a minimum of 6 inches on 48-inch to 72-inch diameter manholes. A clearance of 6 inches is required between wall penetration and joint locations.

10. Construct invert channels to provide smooth flow transition waterway with no disruption of flow at pipe-manhole connections. Provide invert slope through manholes as indicated on the Drawings. Provide curves for side inlets and smooth invert fillets for flow transition between pipe inverts. Polymer bench and channel shall be provided with all resin aggregate material. No alternative fill material is allowed. Provide extended cementitious concrete base footer where required for buoyancy concerns.
11. Provide resilient connectors conforming to requirements of ASTM C 923 or as a required by ENGINEER. All connectors shall be water tight. Install approved resilient connectors at each pipe entering and exiting manholes in accordance with manufacturer’s instructions.

12. Exceptions to ASTM C 478-components shall be designed for the intended combinations of manufacturing materials. Component designs may be as non-reinforced members or reinforced members as recommended by the manufacturer. Steel reinforcement is not required for circumferential reinforcement, joint reinforcement, base slab reinforcement or hoop reinforcement, but may be placed for the purpose of product handling.

C. Grouting

1. All materials needed for grouting and patching will be a polyester mortar compound provided by the manufacturer or an approved equal by the manufacture.

2.3 ACID RESISTANT POLYMER STRUCTURE – US COMPOSITES

A. Materials (per ASTM D 6783)

1. Resin: The manufacturer shall use only polymer or vinyl ester resin systems designed for use with this particular application. Resin content shall be a minimum of 7% by weight.

2. Filler: All aggregate, sand and quartz power shall meet the requirements shall meet the requirements of ASTM C33, where applicable.

3. Additives: Resin additives, such as curing agents, pigments, dyes, fillers and thixotropic agents, when used, shall not be detrimental to the manholes.

4. Elastomeric Gaskets: Gaskets shall be suitable for the service intended. All gaskets shall meet the requirements of ASTM C443.

B. Manufacturing and Production Construction

1. Manholes: Manholes components shall be manufactured by the vibrator vertical casting process resulting in a dense, non-porous, corrosion-resistant, homogeneous, composite structure. Manholes shall be steel reinforced per ASTM C478. Per ASTM C478, hoop reinforcement shall only be allowed in 48” diameter manhole risers with no openings. Larger diameter manholes shall not use hoop reinforcement. Manholes shall have monolithic base slab unless otherwise approved. Manholes shall be engineered and rated lifting devices that shall not penetrate through the wall.

2. Section Joints: Round manhole components shall be connected with an elastomeric sealing gasket as the sole means to maintain joint water-tightness and both the gasket material and the manhole joint shall meet the requirements of ASTM C443. Round manholes shall utilize spigot and bell type joints incorporating either a confined O-ring or single step profile joint. Square and rectangular structures shall utilize a ship-lap joint and be sealed with butyl rope sealant per ASTM C990 as recommended by the manufacturer.

3. Pipe to Manhole Connections: Pipes shall be directly connected to all structures using resilient flexible pipe to manhole and wet well connector per ASTM C923. Cold joint pipe stub grouting shall not be allowed unless shown on the plans as such. In cases where cold joint pipe stubs are shown, they shall be grouted using a corrosion resistant grout and rubber water stop grout ring.
4. Fittings: Cones, reducer slabs and adjusting rings shall be of the same material as adjoining riser sections.

5. Invert Manhole Channels: Invert channels shall be factory built with polymer concrete.

C. Design.

1. Manholes shall be designed to withstand all live loads and dead loads as described in the project plans and specifications. Dead loads shall include overburden load, soil side pressure and hydrostatic load conditions. Manhole shop drawings shall be sealed by a licensed Professional Engineer licensed in the state of Arizona.

2. Manholes wall thickness shall be designed to resist hydrostatic pressures with a safety factor of 2.0 for full depth conditions from grade to invert. In no cases shall the wall thickness be less than 4-inches for 60” and larger and 3-inch for 48” diameter.

3. Manholes shall be design with sufficient bottom anchorage and side friction to resist buoyancy. Field cast floatation collars are acceptable.

4. The manholes shall be manufactured in one class of load rating. This class shall be H-20-wheel load (minimum 16,000 pounds dynamic wheel load).

D. Testing

1. Manholes: Manholes shall be manufactured in accordance with ASTM C478.

2. Joints: Joints shall meet the requirements of ASTM C443.

3. Compressive Strength: Polymer concrete shall have a minimum unconfined compressive strength of 9,000 psi when measured in accordance with ASTM C497.

4. Manhole Leakage: Manhole shall be tested in accordance with ASTM C1244 Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test.

E. Handling and Shipping:

1. Handling and shipping shall be performed in accordance with the manufacturer’s instruction.

PART 3 - EXECUTION

3.1 INSTALLATION

A. The installation shall be in accordance with the project plans and specifications and the manufacturer’s recommended practices.

B. Handling: Properly rated slings and spreader bar shall be used for lifting. The type of rigging used shall be as recommended by the manufacturer’s instructions.

C. Jointing:

1. Sealing surfaces and joint components shall be inspected for damage and cleaned of all debris.
2. Apply joint lubricant to elastomeric seals. Use only lubricants approved by the manufacturer.

3. Use suitable equipment handle and set structure components.

4. Placement and compaction of surrounding backfill material shall provide sufficient and equal side pressure on the manhole during installation.

3.2 GRADING AT MANHOLES

A. All manholes in unpaved areas shall be built as shown on the Drawings. This shall include a concrete collar around the manhole rim to protect from off-road vehicles. The ground surface shall be graded to drain away from the manhole. Fill shall be placed around manholes to the level 6 inches below the top of the concrete collar and upper rim of the manhole frame, and the surface evenly graded on a 1 to 5 slope to the existing surrounding ground, unless otherwise shown on the Drawings or directed by the ENGINEER.

B. Manholes in paved areas and areas receiving gravel shall be constructed to meet the final surface grade as shown on the Drawings.

C. Sole responsibility for the proper height of all manholes necessary to reach the final grade at all locations belongs to CONTRACTOR. Caution: ENGINEER'S review of Shop Drawings for manhole components will be general in nature, provide an adequate supply of random length precast manhole riser sections and adjustment rings to adjust any manhole to meet field conditions for final grading.

3.3 MANHOLE WATERTIGHTNESS

All manholes shall be free of visible leakage. Each manhole shall be tested for leaks and inspected. All leaks shall be repaired in a manner subject to ENGINEER'S approval. Manhole testing shall conform with the requirements of the City of Phoenix Supplement to MAG Section 625.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

Each acid resistant polymer structure constructed shall be measured as a complete unit and will include the manhole base, manhole risers, adjustment rings, manhole frame, manhole cover and concrete collar.

4.2 PAYMENT

Payment shall be per each acid resistant polymer structure installed.