



**PURCHASING ITEM
FOR
COUNCIL AGENDA
Memo No. CA12-019**

1. Agenda Item Number:
17
2. Council Meeting Date:
September 8, 2011

TO: MAYOR & COUNCIL

3. Date Prepared: August 23, 2011

THROUGH: CITY MANAGER

4. Requesting Department: Municipal Utilities

5. SUBJECT: Award an engineering design contract to Aztec Engineering Group, Inc. for the West Chandler/Santan Wastewater Force Main, Project No. WW1012-201, in an amount not to exceed \$1,364,114.

6. RECOMMENDATION: Staff recommends Council award an engineering design contract to Aztec Engineering Group, Inc. for the West Chandler/Santan Wastewater Force Main, Project No. WW1012-201, in an amount not to exceed \$1,364,114.

7. BACKGROUND/DISCUSSION: Currently, the Kyrene Lift Station connects to a 24-inch force main crossing under the Santan 202 freeway at Kyrene Road. It feeds a gravity sewer line flowing to the Lone Butte Wastewater Treatment Plant (WWTP) located on Gila River Indian Community land. The 2008 Wastewater Master Plan recommended installing a force main and pumping system to pump wastewater from west Chandler to the Ocotillo Water Reclamation Facility (OWRF). This pumping alternative adds flexibility to divert wastewater flows back to City treatment facilities for reuse and recharge. This pumping system will also be required when the Lone Butte WWTP lease expires. The preferred project option will modify the Kyrene Lift Station and construct a force main. This project provides professional services for design of the new pipeline and acquisition of ADOT's encroachment permit for construction and long-term operation of the 24-inch diameter wastewater force main. The force main will be installed within an existing utility corridor in ADOT's right-of-way along the south side of the Santan 202 freeway from Kyrene Road east to the Santan 202/Price 101 interchange. This project includes analysis and design for new pumps within the existing wastewater lift station and design of a new junction structure to the existing 66-inch sewer line located near the Santan 202/Price 101 freeway interchange.

8. EVALUATION: The selection process was followed according to State law for design services. Nine (9) Statements of Qualifications were received from qualified firms on July 13, 2011. The Selection Committee included the following members:

- John Knudson, P.E., Utilities Engineering Manager
- Joshua Plumb, P.E., Engineering Project Manager
- Kim Neill, Utilities Operations Manager
- Dan Cook, P.E., Transportation Manager
- Tom McLean, Chandler resident

The committee held interviews and discussions with Aztec Engineering Group, Inc., Ritoch Powell & Associates, and Stanley Consultants. Aztec Engineering Group, Inc. was selected based on qualifications, design capability, current workload, and experience. Staff recommends approval of this contract.

9. FINANCIAL IMPLICATIONS:

Cost: \$1,364,114
Savings: N/A
Long Term Costs: N/A

Fund Source:

<u>Acct. No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
611.3910.0000.6817.11S266	Wastewater Bond	Sewer Assessment & Rehab	FY 10/11	\$1,000,000
611.3910.0000.6817.10S266	Wastewater Bond	Sewer Assessment & Rehab	FY 09/10	\$ 364,114
			Total:	\$1,364,114

10. PROPOSED MOTION: Move Council award an engineering design contract to Aztec Engineering Group, Inc. for the West Chandler/Santan Wastewater Force Main, Project No. WW1012-201, in an amount not to exceed \$1,364,114, and authorize the Mayor to sign the contract documents.

ATTACHMENTS: Contract, Map

APPROVALS

11. Requesting Department


John Knudsen, Utilities Engineering Manager

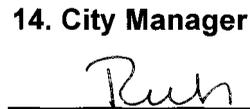
13. Department Head


Dave Siegel, Municipal Utilities Director

12. City Engineer


Sheina Hughes, City Engineer

14. City Manager


Rich Dlugas

DESIGN CONSULTANT SERVICES CONTRACT

PROJECT TITLE: **West Chandler / Santan Wastewater Force Main**
PROJECT NO: **WW1012-201**

This contract is made and entered into by and between the City of Chandler, Arizona, a municipal Corporation, hereinafter called the CITY, and Aztec Engineering Arizona, LLC, hereinafter called DESIGN CONSULTANT.

WHEREAS, DESIGN CONSULTANT represents DESIGN CONSULTANT has the expertise and is qualified to perform the services described in this agreement; and

WHEREAS, the Mayor and City Council/City Manager of the City of Chandler are authorized and empowered by the provisions of the City Charter to execute contracts for Professional Services;

NOW THEREFORE, for and in consideration of the mutual covenants and conditions hereinafter contained, it is agreed by and between the CITY and DESIGN CONSULTANT, as follows:

1. DESCRIPTION OF PROJECT

The existing Kyrene Lift Station pumps wastewater via a 24-inch force main under the 202L freeway south to a gravity sewer system connected to the Lone Butte Wastewater Treatment Plant (WWTP) located on Gila River Indian Community (GRIC) land. The CITY desires to have the ability to pump the wastewater that currently outfalls to the Kyrene Lift Station to either the Lone Butte WWTP or to the Ocotillo Water Reclamation Plant (WRP) located south of Price Road and Queen Creek Road. To accomplish this, DESIGN CONSULTANT will design either an expansion to the existing Kyrene Lift Station and/or a new lift station located adjacent to the Kyrene Lift Station. Also, a new forcemain will be designed along the south side of the 202L from Kyrene Road to the existing 66-inch sanitary sewer on Price Road.

Tasks under this contract include: A Technical Memorandum with costs; Force Main Design, Lift Station Design/Rehabilitation, Lighting/Interconnect Restoration, Landscape/Irrigation Restoration, Geotechnical Investigation, Utility Designating/Potholing, ADOT Coordination/Permitting, Survey, and Stakeholder Coordination.

2. DEFINITIONS:

Words used in this Agreement which are defined in CITY's General Conditions for Construction Contracts shall have the meaning stated therein. DESIGN CONSULTANT is the Project Designer as defined in said General Conditions.

3. SCOPE OF WORK

DESIGN CONSULTANT shall provide those services described in Exhibit A, Exhibit D Schedule, and Exhibit E Quality Control Plan, attached hereto and made a part hereof by reference.

4. PAYMENT SCHEDULE

For services described in paragraph 3 of this Agreement, the CITY shall pay DESIGN CONSULTANT a fee based on the fee schedule attached hereto and made a part hereof by reference Exhibit B not to exceed the sum **One Million Three Hundred Sixty Four Thousand One Hundred Fourteen** dollars (**\$1,364,114**). Payment will be made monthly on the basis of progress reports. An Application and Certification for Payment Sheet must be provided. In addition, the following must also be included: a clear, detailed invoice reflecting items being billed for, a summary sheet showing percentage of work completed to date, amount/percent billed to date and current status of all tasks within a project; any/all

backup documentation supporting the above items. Work schedule updates will be included in the monthly progress payment requests.

5. PERIOD OF SERVICE

DESIGN CONSULTANT shall complete all services described in paragraph 3 within **Three Hundred Sixty Five (365)** calendar days after "Notice to Proceed" is issued by the CITY. In the event delays are experienced beyond the control of DESIGN CONSULTANT, the completion date may be extended as mutually agreed upon by CITY and DESIGN CONSULTANT.

6. OPINIONS OF PROBABLE COSTS (ESTIMATES)

Any opinions of probable project cost or probable construction cost provided by DESIGN CONSULTANT are made on the basis of information available to DESIGN CONSULTANT and on the basis of DESIGN CONSULTANT's experience and qualifications, and represents its judgment as an experienced and qualified professional architect. However, since DESIGN CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, DESIGN CONSULTANT does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost DESIGN CONSULTANT prepares.

7. APPROVALS

All work shall be subject to the approval by the City Engineer.

DESIGN CONSULTANT agrees to exercise the skill and care which would be exercised by comparable professional architect performing similar services at the time and in the locality such services are performed. If the failure to meet these standards results in faulty work, DESIGN CONSULTANT shall undertake at its own expense, the corrective adjustments or modifications.

8. REPORTING

Written monthly reports, along with updated work schedules, will be made by DESIGN CONSULTANT in the format prescribed by the CITY. These reports will be delivered to the CITY per schedule. When requested by the CITY, DESIGN CONSULTANT will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.

9. STANDARDS OF PERFORMANCE:

A. This design contract has been awarded to DESIGN CONSULTANT based on their proposal that those personnel and consultants listed in Exhibit A attached hereto will perform the portions of the work listed on said Exhibit A. DESIGN CONSULTANT shall not deviate nor substitute any of these team members without prior written approval by CITY.

B. DESIGN CONSULTANT shall be familiar with CITY's Standard Details and Specifications and other relevant CITY regulations. DESIGN CONSULTANT shall ensure there are no conflicts among the Contract Documents including, but not limited to, the CITY's General and Supplementary Conditions for Construction Contracts, the plans and specifications prepared by DESIGN CONSULTANT, any standard details or specifications incorporated therein by reference, and the Construction Contract.

C. Correction of Mistakes: DESIGN CONSULTANT shall be responsible for the completeness and accuracy of the work prepared or compiled under DESIGN CONSULTANT's obligation for this project and shall correct, at DESIGN CONSULTANT's expense, all errors or omissions therein which may be disclosed. Correction of errors disclosed and determined to exist during any construction of the project

on architectural or DESIGN CONSULTANTing drawings and specifications shall be accomplished by DESIGN CONSULTANT. The cost of the design necessary to correct those errors attributable to DESIGN CONSULTANT and any damage incurred by CITY as a result of additional construction costs caused by such engineering or architectural errors shall be chargeable to DESIGN CONSULTANT and shall not be considered a cost of the Work. The fact that CITY has reviewed or approved DESIGN CONSULTANT's work shall in no way relieve DESIGN CONSULTANT of any of its responsibilities.

10. INDEMNIFICATION

(a) For Professional Liability:

To the fullest extent permitted by law, DESIGN CONSULTANT shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature related to, arising out of, or alleged to have resulted from the errors, mistakes or omissions relating to professional services by DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors in the performance of this Contract or of any other person for whose errors, mistakes or omissions DESIGN CONSULTANT may be legally liable. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC (other than DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

(b) For all Other Liabilities, Hazards and Exposures:

To the fullest extent permitted by law, DESIGN CONSULTANT shall defend, indemnify and hold harmless the City of Chandler, its agents, representatives, officers, directors, officials and employees, individually and collectively, (hereinafter CoC) from and against all losses, claims, damages, suits, actions, payments, judgments, demands, expenses, and costs, including but not limited to, attorney's fees, defense costs, court costs, and the cost of appellate proceedings, or actions of any kind and nature, wages or overtime compensation due employees in rendering service under this Contract and whether to any person or property, including natural resources and any claim made under the Fair Labor Standards Act or any other federal or state laws, related to, arising out of, or alleged to have resulted from the actions of DESIGN CONSULTANT and alleged to have been caused in whole or in part by any act or omission of DESIGN CONSULTANT, anyone directly or indirectly employed by them or anyone for whose acts DESIGN CONSULTANT may be legally liable, and from any claims or amounts arising or recovered under Workers' Compensation laws or any other law, bylaw, or ordinance, order or decree or any failure on the part of DESIGN CONSULTANT, its agents, employees or representatives to fulfill DESIGN CONSULTANT's obligations under this Contract. This indemnity shall not be construed to include losses, claims, damages, suits, or actions of any kind and nature, to the extent arising from or alleged to have resulted from the errors, mistakes or omissions of CoC, (other than DESIGN CONSULTANT, its employees, agents, or any tier of subcontractors). The provisions of this paragraph shall survive termination of this Contract.

(c) Consequential Damages:

The parties intend that damages and/or costs and all other terms implying an amount tied to liability shall include consequential damages and loss of productivity limited to the total value of this contract in dollars as payable by the City of Chandler or twice the amount of aggregate insurance required by this Contract, whichever is greater.

(d) Insurance does not limit liability:

The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

11. INSURANCE REQUIREMENTS:

- A DESIGN CONSULTANT, at its own expense, shall purchase and maintain insurance of the types and amounts required in this section, with companies possessing a current A.M. Best, Inc. rating of B++6, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to CITY.
- B With the exception of professional liability policies, policies written on a "Claims made" basis are not acceptable without written permission from the City's Risk Manager.
- C All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of this Agreement is satisfactorily completed and formally accepted. Failure to do so may, at the sole discretion of CITY, constitute a material breach of this Agreement and may result in termination of this contract.
- D If any of the insurance policies are not renewed prior to expiration, payments to the DESIGN CONSULTANT may be withheld until these requirements have been met, or at the option of the City, the City may pay the Renewal Premium and withhold such payments from any monies due the DESIGN CONSULTANT.
- E All insurance policies, except Workers' Compensation and Professional Liability required by this Agreement, and self-insured retention or deductible portions, shall name, to the fullest extent permitted by law for claims arising out of the performance of this contract, the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insureds.
- F DESIGN CONSULTANT's insurance shall be primary insurance over any insurance available to the CITY and as to any claims resulting from this contract, it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for any and all losses covered by the described insurance.
- G The insurance policies, except Workers' Compensation, shall contain a waiver of transfer rights of recovery (subrogation) against CITY, its agents, representatives, officers, directors, officials and employees for any claims arising out of DESIGN CONSULTANT's acts, errors, mistakes, omissions, work or service.
- H The insurance policies may provide coverage which contain deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall be assumed by and be for the account of, and at the sole risk of DESIGN CONSULTANT. DESIGN CONSULTANT shall be solely responsible for the deductible and/or self-insured retention. The amounts of any self-insured retentions shall be noted on the Certificate of Insurance. CITY, at its option, may require DESIGN CONSULTANT to secure payment of such deductibles or self-insured retentions by a Surety Bond or an irrevocable and unconditional letter of credit. Self-insured retentions (SIR) in excess of \$25,000 will only be accepted with the permission of the Management Services Director/designee.
- I All policies and certificates shall contain an endorsement providing that the coverage afforded under such policies shall not be reduced, canceled or allowed to expire until at least thirty (30) days prior written notice has been given to CITY.
- J Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the DESIGN CONSULTANT with reasonable promptness in accordance with the DESIGN CONSULTANT's information and belief.
- K In the event that claims in excess of the insured amounts provided herein, are filed by reason of any operations under this contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due the DESIGN CONSULTANT until such time

as the DESIGN CONSULTANT shall furnish such additional security covering such claims as may be determined by the CITY.

11.2 Proof of Insurance - Certificates of Insurance

- A Prior to commencing work or services under this Agreement, DESIGN CONSULTANT shall furnish to CITY Certificates of Insurance, issued by DESIGN CONSULTANT's insurer(s), as evidence that policies providing the required coverages, conditions and limits required by this Agreement are in full force and effect and obtain from the City's Risk Management Division approval of such Certificates.
- B If a policy does expire during the life of this Agreement, a renewal certificate must be sent to the City of Chandler five (5) days prior to the expiration date.
- C All Certificates of Insurance shall identify the policies in effect on behalf of DESIGN CONSULTANT, their policy period(s), and limits of liability. Each Certificate shall include the job site and project number and title. Coverage shown on the Certificate of Insurance must coincide with the requirements in the text of the contract documents. Information required to be on the certificate of Insurance may be typed on the reverse of the Certificate and countersigned by an authorized representative of the insurance company.
- D CITY reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance policies and/or endorsements. CITY shall not be obligated, however, to review same or to advise DESIGN CONSULTANT of any deficiencies in such policies and endorsements, and such receipt shall not relieve DESIGN CONSULTANT from, or be deemed a waiver of CITY's right to insist on, strict fulfillment of DESIGN CONSULTANT's obligations under this Agreement.

11.3 Required Coverage

Such insurance shall protect DESIGN CONSULTANT from claims set forth below which may arise out of or result from the operations of DESIGN CONSULTANT under this Contract and for which DESIGN CONSULTANT may be legally liable, whether such operations be by the DESIGN CONSULTANT or by a Sub-consultant or subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Coverage under the policy will be at least as broad as Insurance Services Office, Inc., policy form CG00011093 or equivalent thereof, including but not limited to severability of interest and waiver of subrogation clauses.

- A Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- B Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- C Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- D Claims for damages insured by usual personal injury liability coverage;
- E Claims for damages, other than to Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- F Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; Coverage will be at least as broad as Insurance Service Office, Inc., coverage Code "I" "any auto" policy form CA00011293 or equivalent thereof.

- G Claims for bodily injury or property damage arising out of completed operations;
- H Claims involving contractual liability insurance applicable to the Contractor's obligations under the Indemnification Agreement;
- I Claims for injury or damages in connection with one's professional services;
- J Claims involving construction projects while they are in progress. Such insurance shall include coverage for loading and off loading hazards. If any hazardous material, as defined by any local, state or federal authorities are to be transported, MCS 90 endorsement shall be included.

11.3.1 Commercial General Liability - Minimum Coverage Limits:

The Commercial General Liability insurance required herein shall be written for not less than \$1,000,000 limits of liability or ten percent (10%) of the Contract Price, whichever coverage is greater. Any combination between general liability and excess general liability alone amounting to a minimum of \$1,000,000 per occurrence (or 10% per occurrence) and an aggregate of \$2,000,000 (or 20% whichever is greater) in coverage will be acceptable. The Commercial General Liability additional insured endorsement shall be as broad as the Insurance Services, Inc's (ISO) Additional Insured, Form B, CG 20101001, and shall include coverage for DESIGN CONSULTANT's operations and products, and completed operations.

11.3.2 General Liability - Minimum Coverage Limits

The General Liability insurance required herein, including, Comprehensive Form, Premises-Operations, Explosion and Collapse, Underground Hazard, Products/Completed Operations, Contractual Insurance, Broad Form Property Damage, Independent Contractors, and Personal Injury shall be written for Bodily Injury and Property Damage Combined shall be written for not less than \$1,000,000 or 10% of the contract cost and with a \$2,000,000 aggregate.

11.3.3 Automobile Liability

DESIGN CONSULTANT shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence with respect to any owned, hired, and non-owned vehicles assigned to or used in performance of the DESIGN CONSULTANT's work. Coverage shall be at least as broad as coverage code 1, "any auto", (Insurance Service Office, Inc. Policy Form CA 00011293, or any replacements thereof). Such insurance shall include coverage for loading and off loading hazards if hazardous substances, materials or wastes are to be transported and a MCS 90 endorsement shall be included with coverage limits of \$5,000,000 per accident for bodily injury and property damage.

11.3.4 Worker's Compensation and Employer's Liability

DESIGN CONSULTANT shall maintain Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over DESIGN CONSULTANT's employees engaged in the performance of the work or services; and, Employer's Liability insurance of not less than \$1,000,000 for each accident, \$1,000,000 disease coverage for each employee, and \$1,000,000 disease policy limit.

In case any work is subcontracted, DESIGN CONSULTANT will require the Subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of DESIGN CONSULTANT.

11.3.5 Professional Liability

DESIGN CONSULTANT shall maintain Professional Liability insurance covering acts, errors, mistakes and omissions arising out of the work or services performed by DESIGN CONSULTANT, or any person employed by DESIGN CONSULTANT, with a claims made policy limit of not less than \$1,000,000.

12. AMENDMENTS

Whenever a change in the scope of work contemplated in this Contract is determined to be necessary, the work will be performed in accordance with the Contract provided, however, that BEFORE such work is started, a Contract Amendment shall be executed by the CITY and DESIGN CONSULTANT. Additions to, modifications of, or deletions from the project provided herein may be made and the compensation to be paid to DESIGN CONSULTANT may be adjusted accordingly by mutual agreement of the contracting parties. It is agreed that no claim for extra work by DESIGN CONSULTANT will be allowed by the CITY except as provided herein, nor shall DESIGN CONSULTANT do any work not covered by this Contract unless such work is authorized through an executed amendment.

13. TERMINATION WITHOUT CAUSE

CITY may at any time and for any or no reason, at its convenience, terminate this contract or any part of the services to be rendered pursuant thereto by written notice to DESIGN CONSULTANT specifying the termination date. Immediately after receiving such notice, DESIGN CONSULTANT shall discontinue advancing the work under this Contract and shall deliver to the CITY all drawings, notes, calculations, sketches and other materials entirely or partially completed, together with all unused materials supplied by the CITY.

DESIGN CONSULTANT shall receive as compensation in full for services performed to date of such termination, a fee for the percentage of work actually completed. This fee shall be a percentage of DESIGN CONSULTANT(S) fee described in this Contract under paragraph 3 and shall be in the amount to be agreed mutually by DESIGN CONSULTANT and the CITY. The CITY shall make this final payment within sixty (60) days after DESIGN CONSULTANT has delivered the last of the partially completed items.

14. TERMINATION WITH CAUSE

This Agreement may be terminated by CITY for cause should the DESIGN CONSULTANT fail to perform any provision of this Agreement, including without limitation, for any of the following reasons:

- (a) DESIGN CONSULTANT abandons Work;
- (b) DESIGN CONSULTANT assigns or attempts to assign its rights or obligations under this Agreement or any part thereof to any third-party (without the prior written consent of CITY);
- (c) DESIGN CONSULTANT is adjudged bankrupt or insolvent, makes a general assignment for the benefit of creditors, has a trustee or receiver appointed for its property, or files a petition to take advantage of any debtor's act;
- (d) DESIGN CONSULTANT fails or refuses to perform any obligation under the Agreement, or fails to remedy such nonperformance within seven (7) days after its occurrence;
- (e) DESIGN CONSULTANT fails to comply with any applicable Laws and fails to remedy such nonperformance within seven (7) days after its occurrence;
- (f) DESIGN CONSULTANT fails to achieve the required dates for performance required pursuant to the Agreement.

The CITY'S right of termination for cause as set forth herein shall be in addition to, and not a limitation of, any and all other remedies available to CITY at law, in equity, or under the terms and provisions of this Agreement.

15. OWNERSHIP OF DOCUMENTS

All documents, including, but not limited to, tracings, drawings, original mylars, estimates, field notes, investigations, design analysis and studies which are prepared in the performance of this Contract are to be, and remain the property of, the CITY. DESIGN CONSULTANT shall furnish the CITY, upon its request, originals or reproducible of technical specifications and copies of all other documents listed above. DESIGN CONSULTANT shall endorse, by his professional seal, all plans and engineering data furnished by him.

16. RE- USE OF DOCUMENTS

The parties agree the documents, drawings, specifications and designs, although the property of CITY, are prepared for this specific project and are not intended nor represented by DESIGN CONSULTANT to be suitable for re-use for any other project. Any reuse without written verification or adaptation by DESIGN CONSULTANT for the specific purpose intended will be at CITY's sole risk and without liability or legal exposure to DESIGN CONSULTANT.

17. NO KICK-BACK CERTIFICATION

DESIGN CONSULTANT warrants that no person has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee; and that no member of the City Council or any employee of the CITY has any interest, financially or otherwise, in the DESIGN CONSULTANTING firm.

For breach or violation of this warranty, the CITY shall have the right to annul this Contract without liability or at its discretion to deduct from the Contract Price or consideration, the full amount of such commission, percentage, brokerage or contingent fee.

18. CONFLICT OF INTEREST

DESIGN CONSULTANT stipulates that its officers and employees do not now have a conflict of interest and it further agrees for itself, its officers and its employees that it will not contract for or accept employment for the performance of any work or services with any individual business, corporation or government unit that would create a conflict of interest in the performance of its obligations pursuant to this Contract.

Pursuant to A.R.S. Section 38-511, the City may cancel this contract within three (3) years after its execution, without penalty or further obligation by the City if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the City of Chandler is, at any time while the contract is in effect, an employee of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract.

19. ALTERNATE DISPUTE RESOLUTION

19.1 Alternative Dispute Resolution. The parties hereby agree that there shall be a sixty (60) day moratorium on litigation commencing on the day that a claim is filed by CONTRACTOR pursuant to A.R.S. § 12-821.01 during which time the parties will negotiate in good faith to resolve the dispute and evaluate the viability of pursuing alternative dispute resolution procedures such as mediation and arbitration.

19.2 Arizona Law. This Agreement shall be governed and interpreted according to the laws of the State of Arizona.

- 19.3 **Jurisdiction and Venue.** The parties agree that this Agreement is made in and shall be performed in Maricopa County. Any lawsuits between the Parties arising out of this Agreement shall be brought and concluded in the courts of Maricopa County in the State of Arizona, which shall have exclusive jurisdiction over such lawsuits.
- 19.4 **Fees and Costs.** Except as otherwise agreed by the parties, the prevailing party in any adjudicated dispute relating to this Agreement is entitled to an award of reasonable attorney's fees, expert witness fees and costs including, as applicable, arbitrator fees; provided, however, that no award of attorney's fees shall exceed ten percent (10%) of the damages awarded the prevailing party unless the non-prevailing party has been determined to have acted in bad faith or in a frivolous manner during the adjudication.

20. **CONTROLLING LAW**

The law of the state of Arizona shall govern this Contract.

21. **REQUIRED COMPLIANCE WITH ARIZONA PROCUREMENT LAW**

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

A breach of the Design Consultant Immigration Warranty (Exhibit C) shall constitute a material breach of this Contract that is subject to penalties up to and including termination of the contract.

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

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

The provisions of this Article must be included in any contract the Design Consultant enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a Design Consultant or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

In accordance with A.R.S. §35-393.06, the Design Consultant hereby certifies that the offeror does not have scrutinized business operations in Iran.

In accordance with A.R.S. §35-391.06, the Design Consultant hereby certifies that the offeror does not have scrutinized business operations in Sudan.

22. **NO ASSIGNMENT**

DESIGN CONSULTANT shall not assign, transfer, convey or subcontract this contract or the services to be rendered pursuant thereto without the prior written consent of CITY.

23. NOTICES

Any notice required under this Contract shall be in writing, addressed to the appropriate party at its address on the signature page and given personally or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names to this _____ day of _____ 2011.

CITY OF CHANDLER

DESIGN CONSULTANT:

MAYOR Date

By: Robert L. Stankoff
Title: CEO

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
480-782-3307

ADDRESS FOR NOTICE
ARTEC ENGINEERING
4561 E. McDowell Road
PHOENIX, ARIZONA 85008
Phone: 602-454-0402
Fax: 602-454-0403

ATTEST:

City Clerk

ATTEST: If Corporation

Secretary

APPROVED AS TO FORM:

City Attorney by: [Signature] SEAL

EXHIBIT A SCOPE OF WORK

This scope of work (SOW) describes Engineering Services to be provided to the City of Chandler (CITY) for the West Chandler/Santan Freeway Wastewater Force Main project. This project was identified in the CITY's Integrated Water, Wastewater and Reclaimed Water Systems Update completed in September 2008.

The duration of this design project is assumed to be 365 calendar days from the Notice to Proceed (NTP) to Final Completion. A preliminary schedule is attached to this SOW in Appendix E which will be developed further and regularly updated during design.

PROJECT DESCRIPTION

The existing Kyrene Lift Station pumps wastewater via a 24-inch force main under the 202L freeway south to a gravity sewer system connected to the Lone Butte Wastewater Treatment Plant (WWTP) located on Gila River Indian Community (GRIC) land. The CITY desires to have the ability to pump the wastewater that currently outfalls to the Kyrene Lift Station to either the Lone Butte WWTP or to the Ocotillo Water Reclamation Plant (WRP) located south of Price Road and Queen Creek Road. To accomplish this, DESIGN CONSULTANT will design either an expansion to the existing Kyrene Lift Station and/or a new lift station located adjacent to the Kyrene Lift Station. Also, a new forcemain will be designed along the south side of the 202L from Kyrene Road to the existing 66-inch sanitary sewer on Price Road.

Tasks under this contract include: A Technical Memorandum with costs, Force Main Design, Lift Station Design/Rehabilitation, Lighting/Interconnect Restoration, Landscape/Irrigation Restoration, Geotechnical Investigation, Utility Designating/Potholing, ADOT Coordination/Permitting, Survey, and Stakeholder Coordination.

UTILITY DESIGN – TASK 1.0

The work under this task consists of the following services:

- 24" Sanitary Sewer Force Main Task 1.1
- General Utility Design Items Task 1.2

Task 1.1 – 24" Sanitary Sewer Force Main & Task 1.2 – General Utility Design Items

This Task includes preparation of 60% Design Development, 90% Construction Documents, and 100% Final Plans on City of Chandler standard sheets using AutoCAD format for sewer force mains associated with the project.

60% Submittal – DESIGN CONSULTANT shall develop the following material and submit for review:

- Preliminary design sheet with index and general notes, summary sheets and special details
- Pre-final reclaimed water line/sewer force main plan and profile sheets
- Final location of valves, vaults, drains, air release assemblies and blow-offs
- Final location of connections to other lines or facilities
- Identification of final utility conflicts and preliminary plans of utility installations and/or relocations to be included in project construction
- Preliminary special details
- Pump Station items (to be provided by Carollo per Task 3.0 of this SOW)
- Preliminary landscape and irrigation restoration plans, summaries, and details (to be provided by J2 per Task 7.0 of this SOW)
- Quantities and bid item numbers
- Technical specifications
- 60% construction cost estimate

90% Submittal - DESIGN CONSULTANT shall complete and check the following final material and shall submit for review:

- Design sheet(s) with index and general notes
- Special details

- Final sewer force main plan and profile sheets with all appurtenances included
- Utility installation/relocation plans and details to be included in project construction
- Pump Station items (per Task 3.0 of this SOW)
- Landscape and irrigation restoration plans and details (per Task 7.0 of this SOW)
- Updated quantities and bid item numbers
- Final design calculations (if requested by City of Chandler)
- Updated technical specifications and supplementary conditions
- 90% construction cost estimate

Final Submittal (100%) - DESIGN CONSULTANT shall submit the following material to the City of Chandler for bid documents:

- A complete reproducible set of sealed and signed contract plans necessary to construct the improvements identified in this contract.
- A complete reproducible set of sealed and signed specifications and special provisions necessary to construct the improvements identified in this contract.
- Electronic versions of all plan sheets in AutoCAD compatible format (.dwg and .dxf) on compact disk (CD) in CD-R format.
- Final and complete quantity summaries.
- Final survey computations and original field books.
- 100% construction cost estimate

This scope includes preparation of the necessary documents and calculations for the approval to construct from the Maricopa County Environmental Services Department (MCESD). It is assumed that the City of Chandler will be responsible for permit fees and expedited review fees required by the County.

UTILITY COORDINATION – TASK 2.0

The work under this task consists of the following service:

- Utility Coordination Task 2.1

Task 2.1 – Utility Coordination

This Task includes coordination, meetings, communications with the utility companies in order to get consensus from the utility companies and to determine the design constraints. This task also includes evaluation of three alternatives for the force main alignment including pros, cons, and costs/benefit evaluations. Specific subtasks are listed in Appendix C – Estimated Work Hours.

This Task also includes preparation of 15% Schematic Design which includes the following material shall be developed and submitted for review:

- Color roll plot showing major project features and recommended improvements
- Technical memorandum with narrative of constraints, evaluations, with costs and description of proposed alternatives.
- Preliminary location of valves, vaults, drains, manways, air release assemblies and blow-offs
- Preliminary location of connections to other lines or facilities
- Location of existing utilities and identification of initial utility conflicts
- Preliminary location of proposed utilities by others (if any)
- Initial easement requirements
- Initial Geotechnical Report (To be provided on or before the 60% Submittal)
- Final survey information
- Preliminary summary of quantities

KYRENE LIFT STATION AND JUNCTION STRUCTURE (CAROLLO) - TASK 3.0

This Task addresses the Expansion of the existing Kyrene Lift Station under basic services. The design of a new Lift Station is listed as an Allowance and described in the Allowance section of the SOW.

The work consists of the following types of services:

- Kyrene Lift Station Expansion Task 3.1
- New Junction Structure at 66-inch Task 3.2
- General Items Task 3.3

The following assumptions are considered inclusive to this Scope of Work:

- DESIGN CONSULTANT shall provide field survey information related to either the existing Kyrene Lift Station property, or the new Junction Structure at the existing 66-inch interceptor sewer.
- New pumps will be Flygt submersibles.

The deliverables under this Task include the relevant deliverables as listed in Task 1.1

Task 3.1 – Kyrene Lift Station Expansion

The effort associated with this Task does not include the following services since they are included under Task 3.3:

- Data collection related to the existing Kyrene Lift Station, including flow records, electrical utility records, record drawings, and other pertinent data.
- Field visit to ascertain current site conditions.
- Head calculation related to new junction structure at existing 66-inch interceptor sewer.
- Pump and impeller selection.
- Electrical service evaluation and recommended improvements.
- Identification of new enclosure for new MCCs and VFDs – prefabricated or built in place (CMU or similar).

The effort associated with this Task includes:

- Site layout with modifications to the existing force main and / or valving.
- Site access, grading and drainage.
- Modifications to the existing wet well, if required.
- Modifications to the existing discharge piping and valves.
- Layout and configuration of a new enclosure for the MCCs and VFDs for the new submersible pumps.
- Electrical drawings pertaining to the new MCC, VFDs, pumps, new enclosure and other site electrical improvements.
- P&ID drawings pertaining to the pump improvements, and ability of the lift station to pump wastewater to either Lone Butte WWTP or Ocotillo WRP.

The deliverables under this Task include the relevant deliverables as listed in Task 1.1

Task 3.2– New Junction Structure at 66-Inch Interceptor Sewer

The effort associated with this Task does not include the following services since they are included under Task 3.3 below or by others:

- Data collection related to the proposed new junction structure site, field surveying, locating existing utilities, property and rights-of-way information.
- Field visit to ascertain current site conditions.
- Electrical service evaluation and proposed SCADA communication plan.
- Preliminary layout of the new site, including access, size and configuration of tie-in structure, metering vault, and odor control.

The effort associated with this Task includes:

- Detailed site layout with access and security walls.
- Site grading and drainage.
- Layout and configuration of a new tie-in structure of the new 24-inch force main and existing 66-inch gravity sewer.

- Detailed structural drawings related to the new tie-in structure and other facility slabs or pedestals.
- Site lighting, electrical service to support the new flow meter, odor control equipment and SCADA equipment.

The deliverables under this Task include the relevant deliverables as listed in Task 1.1

Task 3.3 – General Items

Services provided under this Task include:

- Project status reporting to the CITY via DESIGN CONSULTANT monthly.
- Development of a 15% design memorandum for both Tasks 3.1 and 3.2 above.
- One (1) field site visit to both Kyrene Lift Station and the proposed new junction structure site.
- Development of a 15% design level opinion of construction cost.
- Development of technical specifications for both 60% and 100% designs.
- Progress meetings with DESIGN CONSULTANT, assuming 2 meetings during the 15% design development and 10 meetings (once a month) for the remainder of the 12 month project duration.
- Internal team meetings, once a week for 52 weeks.
- Three (3) comment resolution meetings with the CITY.
- Unscheduled meetings with CITY staff, and teleconferences.

EROSION CONTROL – TASK 4.0

Work under this task consists of the following service:

- Erosion Control Plans Task 4.1

Task 4.1 – Erosion Control Plans

DESIGN CONSULTANT shall develop erosion control as required by ADOT for this project.

The deliverables under this Task include the relevant deliverables as listed in Task 1.1

STRUCTURES – TASK 5.0

Work under this task consists of the following services:

- East Tie-In Junction Structure Task 5.1
- General Structural Items Task 5.2

Task 5.1 – East Tie-in Junction Structure

DESIGN CONSULTANT shall develop plans for the perimeter wall, gate, and antennae pole foundation and junction structure:

1. Junction Structure Perimeter Wall Details
2. Junction Structure Perimeter Wall Gate Details
3. Antennae Pole Foundation Details

DESIGN CONSULTANT shall prepare the necessary calculation in accordance with current edition of applicable LRFD code.

The deliverables under this Task include the relevant deliverables as listed in Task 1.1

Task 5.2 – General Structural Items

Estimate includes the necessary hours to aid with the 15% Design Memorandum and Roll Plot.
Estimate anticipates that there will be a ½-day Field Review Site Meeting. 1-hour of travel time and 1-hour of clerical time has been included for this meeting.
DESIGN CONSULTANT shall provide the structural quantities and cost estimates
DESIGN CONSULTANT shall provide the required structural item special provisions
Estimate anticipates that there will be four 1-hour Internal Team Meetings at Chandler offices.
Estimate anticipates that there will be three 1-hour Comment Resolution Meetings. 1-hour of travel time and 1-hour of clerical time has been included for this meeting.
Estimate anticipates that there will be one 1-hour meeting to discuss the project goals and expectations with the City of Chandler.

LIGHTING AND INTERCONNECT – TASK 6.0

Work under this task consists of the following service:

- General Lighting and Interconnect Task 6.1

Task 6.1 – General Lighting and Interconnect

DESIGN CONSULTANT shall coordinate with ADOT's Traffic Group to verify requirements for lighting and Freeway Management Systems (FMS)/interconnect conduit relocation.
DESIGN CONSULTANT shall develop a 15% roll plot to delineate relocations and estimate costs.
DESIGN CONSULTANT shall develop a technical memorandum to define the requirement of relocation for lighting and interconnect conduit.

LANDSCAPE/IRRIGATION – TASK 7.0

Work under this task consists of the following service:

- Landscape/Irrigation Task 7.1
- General Landscape/Irrigation Task 7.2

Task 7.1 – Landscape/Irrigation

This Task includes design and preparation of construction documents for landscape and landscape irrigation restoration within the project limits that are consistent with the City of Chandler and/or ADOT guidelines and in accordance with direction provided by the CITY and ADOT during design. The design will address the disturbance to the existing plantings and irrigation system and shall also include additional impacts to these facilities due to construction activities. Landscaping plans shall be included with each submittal beginning with the 60% submittal, and shall include at a minimum:

- Legends with all plant material and irrigation symbols defined, quantity summaries and material requirements
- Planting plans with plant palette and locations
- Planting and groundcover details
- Paver or asphalt stamping layout, locations and details
- Controller, meter and backflow prevention device locations and details
- Valve key showing valve type, controller station, size and flow
- Electric point of service location for each controller (if needed)
- General and construction notes.

The deliverables under this Task include the relevant deliverables as listed in Task 1.1

Task 7.2 – General Landscape/Irrigation

This Task includes participation in the 15% roll plot and technical memorandum which will include evaluation of three landscape restoration options including pros/cons, and costs.

Additional items under this scope relate to general landscape restoration final design tasks relating to field review meetings, specifications, quantities, and attendance to three comment resolution meetings.

SURVEYING – TASK 8.0

- DESIGN CONSULTANT shall establish a minimum of 4 control points along the corridor at 1-mile intervals. DESIGN CONSULTANT shall use the City of Chandler horizontal and vertical datum.
- DESIGN CONSULTANT shall stake the alignment of the sewer line at 200-foot intervals for a site walk through.
- DESIGN CONSULTANT shall conduct a topographic survey at 50-foot stations within the ADOT Right-of-Way south of the existing SR202L from Kyrene Road to Price Road near the proposed sewer tie-in, to include the following:
 - All topographic features including, but not limited to toe of slope, top of slope, vegetation, any surface utilities and blue stake markings, walls and fences, and at any grade breaks out to the existing Right-of-Way.
- DESIGN CONSULTANT shall survey rim and inverts of all manholes

RIGHT OF WAY – TASK 9.0

DESIGN CONSULTANT shall prepare a right-of-way base map showing the ADOT right-of-way and any SRP and USA easements that cross the proposed alignment.

GEOTECHNICAL INVESTIGATION – TASK 10.0

- DESIGN CONSULTANT shall perform test borings to determine subsurface conditions and obtain representative samples for laboratory analyses. Fifteen test borings 15 to 25 feet in depth are proposed along the force main and at the junction structures, and 1 test boring 25 feet in depth is proposed for the lift station. DESIGN CONSULTANT shall obtain a permit from ADOT and the City of Chandler for work within the various right-of-ways. All test borings will be Blue Staked and locations coordinated with DESIGN CONSULTANT.
- Laboratory analyses of representative samples will include:
 - Moisture Content and Dry Density
 - Compression
 - Direct Shear
 - Sieve Analysis and Plasticity Index
 - Standard Proctor
 - pH/Minimum Resistivity, Soluble Salts, Sulfate, Chloride
- The field and laboratory data will be used in engineering evaluation and analyses to formulate our geotechnical recommendations. Evaluation will also include a general review of available plans and force main alignment with respect to areas where the SRP power poles lie within four pole foundations diameter of the edge of the force main trench.
- DESIGN CONSULTANT shall provide an Engineer's report presenting the results of the field and laboratory testing and recommendations for foundation support for the lift station and junction structures (including footing depth, bearing capacity, and estimated settlement), lateral earth pressures, site grading and preparation procedures, and for the force main; thickness of replacement pavements, corrosion potential, pipe bedding and backfilling, excavation, horizontal boring conditions, excavation slopes, temporary shoring and individual evaluation of pole/trench interaction.

- All pole foundations which lie within four pole foundation diameters of the edge of the force main trench will require additional geotechnical evaluation in accordance with SRP guidelines and will be analyzed to determine what effects the trench slope has on the stability of the pole/trench interaction. If the analysis indicates potential problems, DESIGN CONSULTANT shall provide trench shoring and/or pole bracing recommendations.

GENERAL ADMINISTRATION/PROJECT MANAGEMENT – TASK 11.0

Work under this task consists of the following service:

- Quality Control Task 11.1
- General Items Task 11.2

Task 11.1 – Quality Control

Quality Control is an important aspect in the delivery of a successful project. Quality Program requires several complimentary elements to confirm that all the aspects of the project have been produced in accordance with the program. DESIGN CONSULTANT shall prepare a Quality Control Manual and Project Work Plan prepared to document and guide the implementation of our Team's Quality Control Program. The estimated time for the preparation of this document has been included. As required by the Quality Control Program, prior to the final delivery of the project, DESIGN CONSULTANT shall perform a Quality Control Audit to confirm that all team members have implemented and documented the stages of the Quality Control Program for each of the project deliverables that they are responsible for. The estimated time for the Project Principal, Project Manager, Project Engineer, and Engineer/Designer is 25 hours for each milestone submittal for a total of 300 hours distributed among these work classifications.

Task 11.2 – General Items

ADOT coordination is a major focus for this project because all of the work will be within the ADOT right-of-way. Major subtasks associated with this task include the following:

- Monthly meetings with ADOT in addition to technical coordination meetings that will be required. The estimated time for the Project Manager and Project Engineer to prepare, lead, and attend 12 one hour monthly meetings has been included. An additional 2 hours for each meeting is included for travel time and meetings notes. Total time is 36 hours for Project Manager and Project Engineer.
- Preparation of exhibits and designs to demonstrate that the proposed CITY improvements will not interfere with ADOT's ability to add a general purpose lane in the future. This will include laying out a preliminary footprint of a general purpose lane and cross sections. The estimated time for the Project Manager is 24 hours; for the Project Engineer is 48 hours; for the Engineer/Designer is 72 hours; and Drafter Technician is 72 hours.
- Assist CITY with preparation of letter of commitment and/or IGA (if needed). This will also include review of the existing IGAs. The estimated time for the Project Manager is 8 hours and for the Project Engineer is 16 hours.
- Meetings with ADOT Maintenance District to determine location for stock piling, ingress/egress locations, and other construction constraints that may need to be added to plans. This will include three one hour meetings. An additional 2 hours for each meeting is included for travel time and meetings notes. Total time is 9 hours for Project Manager and Project Engineer. Graphics for these meetings will require 8 hours Engineer/Designer and 16 hours for Drafter/Technician.

An additional 8 hours of Project Principal Time is included for support of the above ADOT Coordination Tasks.

The ADOT encroachment permit will require a separate submittal to ADOT. Work under this task includes packaging the plans and application necessary for the permit application submission to ADOT. This includes traffic control plans (which will be needed at Price Road), environmental compliance confirmation, and the application form completed.

The estimated time to prepare and maintain the project's detailed Microsoft Project Schedule has been included. It is anticipated that the Project Manager will respond to monthly schedule updates.

DESIGN CONSULTANT shall hold bi-weekly meetings or provide weekly memoranda updates to the CITY. DESIGN CONSULTANT shall prepare and distribute all meeting notes.

Meetings with Stakeholders include one meeting with each of the following stakeholders: Gila River Indian Community, Stellar Airpark, Courtyard Marriott, and other businesses in the area. Meeting preparation, travel time, meeting time, and meetings notes is estimated at 16 hours for Project Manager, 16 hours for Project Engineer, and 2 hours of Project Principal.

The estimated time necessary to coordinate, prepare, assemble, and deliver the milestone submittals has been included.

The project team members have been assigned to provide the project's Cost Estimator with the individual pieces for the overall project cost estimate. The anticipated time to coordinate the Team's approach to the project cost estimating and the time to require to assemble the overall cost estimate and bidding schedule during the project development leading up to each milestone submittal has been included.

The project team members have been assigned to provide individual specifications for assembly into the overall project specifications package. The anticipated time to coordinate the Team's approach to the specification package and the time to assemble the overall specification package during the project development leading up to each milestone submittal has been included. The estimated time for the Project Manager, Project Engineer, and Engineer/Designer to complete this task is 25 hours for each milestone submittal for a total of 75 hours.

The Design Team is responsible for all coordination/communication between disciplines to ensure quality is maintained and the project schedule is met. The estimated time for the Design Team's attendance at project and discipline coordination meetings has been included.

The estimated time for Administration/Control of this project throughout the contract duration has been included. The estimated time for the Project Manager has been established based on approximately 2 hours per week, the Project Engineer for 2 hours per week, and Secretary for 8 hours per week for a total of 52 weeks.

EXPENSES

There are four categories of expenses: Outside reproduction, outside messenger, mileage, and utility designating and potholing. Direct expenses have been estimated for DESIGN CONSULTANT. Assumptions are for these expenses are provided in Appendix B – Direct Expense Breakdown for DESIGN CONSULTANT and subDESIGN CONSULTANTS.

ALLOWANCES

Based on the project scoping meeting with the City on April 7, 2011, the following allowances are included in this SOW:

- Allowance No. A1 Additional Utility Design
- Allowance No. A2 New Lift Station
- Allowance No. A3 Structures – New Lift Station
- Allowance No. A4 Additional Lighting and Interconnect
- Allowance No. A5 Additional Landscape/Irrigation
- Allowance No. A6 Additional Geotechnical
- Allowance No. A7 Post Design and Miscellaneous Services
- Allowance No. A8 Post Design Services

Allowance work items will be authorized in the following manner:

When work items are required that are outside the lump sum scope items, DESIGN CONSULTANT shall notify the CITY Project Manager. This notification will include a description of the additional work and an estimated time and cost for the work items. Upon authorization from the CITY, DESIGN CONSULTANT shall proceed with the Allowance tasks and will bill the CITY on a Cost Plus basis not to exceed the cost provided to the CITY.

Descriptions of the Allowance items are provided below:

Allowance No. A1 Additional Utility Design

If during the development of the 15% design memorandum it becomes apparent that the CITY's goal of being able to pump wastewater to the Lone Butte WWTP or to the Ocotillo WRP is best accomplished by adding an additional force main crossing the 202L near Kyrene Road, DESIGN CONSULTANT shall proceed with that design upon authorization from the CITY. Design includes two additional plan and profile sheets for the force main crossing the 202L.

Allowance No. A2 New Lift Station

If during the development of the 15% design memorandum it becomes apparent that the CITY's goal of being able to pump wastewater to either the Lone Butte WWTP or to the Ocotillo WRP is best accomplished by constructing a new Lift Station adjacent to the existing Kyrene Lift Station, DESIGN CONSULTANT shall proceed with that design upon authorization from the CITY.

The services included under Allowance No. A2:

- Site layout with a connection plan to the existing gravity sewer system and new lift station wet well structure.
- Site access, grading and drainage.
- Layout and configuration of a new enclosure for the MCCs and VFDs for the new lift station submersible pumps.
- Electrical drawings pertaining to the new MCC, VFDs, pumps, new enclosure and other site electrical improvements.
- P&ID drawings pertaining to the pump improvements, and ability of the lift station to pump wastewater to either Lone Butte WWTP or Ocotillo WRP.

The deliverables under this Task include:

- 60% design drawings and technical specifications
- 60% design level opinion of construction cost.
- 100% design drawings and technical specifications.
- 100% design level opinion of construction cost.

Allowance No. A3 New Lift Station Design

Estimate for this allowance is based on providing plans and calculations for a lift station structure for the force main.

DESIGN CONSULTANT shall develop plans and details for the new lift station.

DESIGN CONSULTANT shall provide the structural quantities and cost estimates at each submittal (60%, 95%, 100% and Final).

DESIGN CONSULTANT shall provide the required structural item special provisions at each submittal (60%, 95%, 100% and Final).

DESIGN CONSULTANT shall prepare the necessary calculation in accordance with current edition of applicable LRFD code.

Allowance No. A4 Additional Lighting and Interconnect

Estimate for this allowance includes time for coordination and plan preparation in order to relocate the entire lighting and FMS backbone system along the proposed force main alignment. This includes preparation of final design plans including details, specifications, quantities and inclusion of the additional bid items on the bid tabs.

Allowance No. A5**Additional Landscape/Irrigation**

Estimate for this allowance includes time for coordination and plan preparation in order to relocate the entire landscape irrigation backbone system along the proposed force main alignment. This includes preparation of final design plans including details, specifications, quantities and inclusion of the additional bid items on the bid tabs.

Allowance No. A6**Additional Geotechnical**

Estimate for this allowance includes time for additional geotechnical analyses as may be required by SRP Power Transmission. This work includes analyses and laboratory testing associated with 4 additional pole stability analyses (\$3,500 per pole and \$3,700 for laboratory testing).

Allowance No. A7**Post Design and Miscellaneous Services**

- Attendance at the Pre-Bid conference.
- Assistance in development of Contract Addenda, if any.
- Assistance in the evaluation of Bids.

Allowance No. A8**Post Design Services**

- Attendance at the Pre-Bid conference.
- Assistance in development of Contract Addenda, if any.
- Assistance in the evaluation of Bids.

**EXHIBIT B
FEE SCHEDULE**

Classification	Estimated Person-Hours	Average Hourly Billing Rate	Labor Costs	
Project Principal	19	\$ 195.00	\$	3,705
Project Manager	822	\$ 180.00	\$	147,960
Project Engineer	1,642	\$ 140.00	\$	229,880
Engineer/Designer	1,357	\$ 115.00	\$	156,055
Drafter/Technician	1,353	\$ 95.00	\$	128,535
Sec/Clerical	511	\$ 60.00	\$	30,660
Project Surveyor	28	\$ 120.00	\$	3,360
2-Person Crew	0	\$ 181.00	\$	-
3-Person Crew	128	\$ 210.00	\$	26,880
Totals	5,860		\$	727,035
			Total Estimated Labor	\$ 727,035
Estimated Direct Expenses				
(Listed by Item at Estimated Actual Cost -- No Mark-up)				
Outside Reproduction			\$	2,307
Outside Messenger			\$	720
Mileage			\$	1,862
Utility Designation			\$	19,090
			Total Estimated Expenses	\$ 23,980
Estimated Outside Services				
(Listed by Firm or Name at Estimated Cost -- No Mark-up)				
Firm	Method of Compensation CPNTE, LS, etc.			Cost
Carollo	LS		\$	236,447
RAMM	LS		\$	15,500
J2			\$	44,187
			Total Estimated Outside Services	\$ 296,134
SUBTOTAL BASIC SERVICES LUMP SUM COST				\$ 1,047,148
Allowances				
Allowance Items	Method of Compensation CPNTE, LS, etc.			Cost
AZTEC				
Utility Designating	CPNTE		\$	71,600
Utility Design-Additional				
Lift Station Structures - Additional	CPNTE		\$	8,752
Lift Station Traffic-Lighting and Interconnect	CPNTE		\$	29,396
Post Design Services			\$	33,449
	CPNTE		\$	39,972
			Total AZTEC Allowances	\$ 183,169
Carollo				
Additional Lift Station and Post Design Services	CPNTE		\$	87,962
			Total Carollo Allowances	\$ 87,962
RAMM				
Additional Pole Stability Analysis	CPNTE		\$	17,700
			Total RAMM Allowances	\$ 17,700
J2				
Landscape/Irrigation Design	CPNTE		\$	28,134
			Total J2 Allowances	\$ 28,134
SUBTOTAL ALLOWANCES ESTIMATED COST (COST PLUS NOT TO EXCEED)				\$ 316,965
TOTAL ESTIMATED COST (LUMP SUM + ALLOWANCES)				\$ 1,364,114

EXHIBIT C

Design Consultant Immigration Warranty
To Be Completed by Design Consultant Prior to Execution of Contract

A.R.S. § 41-4401 requires as a condition of your contract verification of compliance by the Design Consultant and subcontractors with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of its employees.

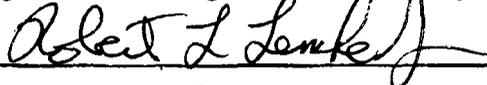
By completing and signing this form the Design Consultant shall attest that it and all subcontractors performing work under the cited contract meet all conditions contained herein.

Project Number/Division: WW1012-201		
Name (as listed in the contract):		
Street Name and Number:		
City:	State:	Zip Code:

I hereby attest that:

1. The Design Consultant complies with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of those employees performing work under this contract;
2. All subcontractors performing work under this contract comply with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of their employees; and
3. The Design Consultant has identified all Design Consultant and subcontractor employees who perform work under the contract and has verified compliance with Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214.

Signature of Design Consultant (Employer) or Authorized Designee:



Printed Name: ROBERT L. LEMKE, JR

Title: CEO

Date (month/day/year): 8-2-11

EXHIBIT D
SCHEDULE

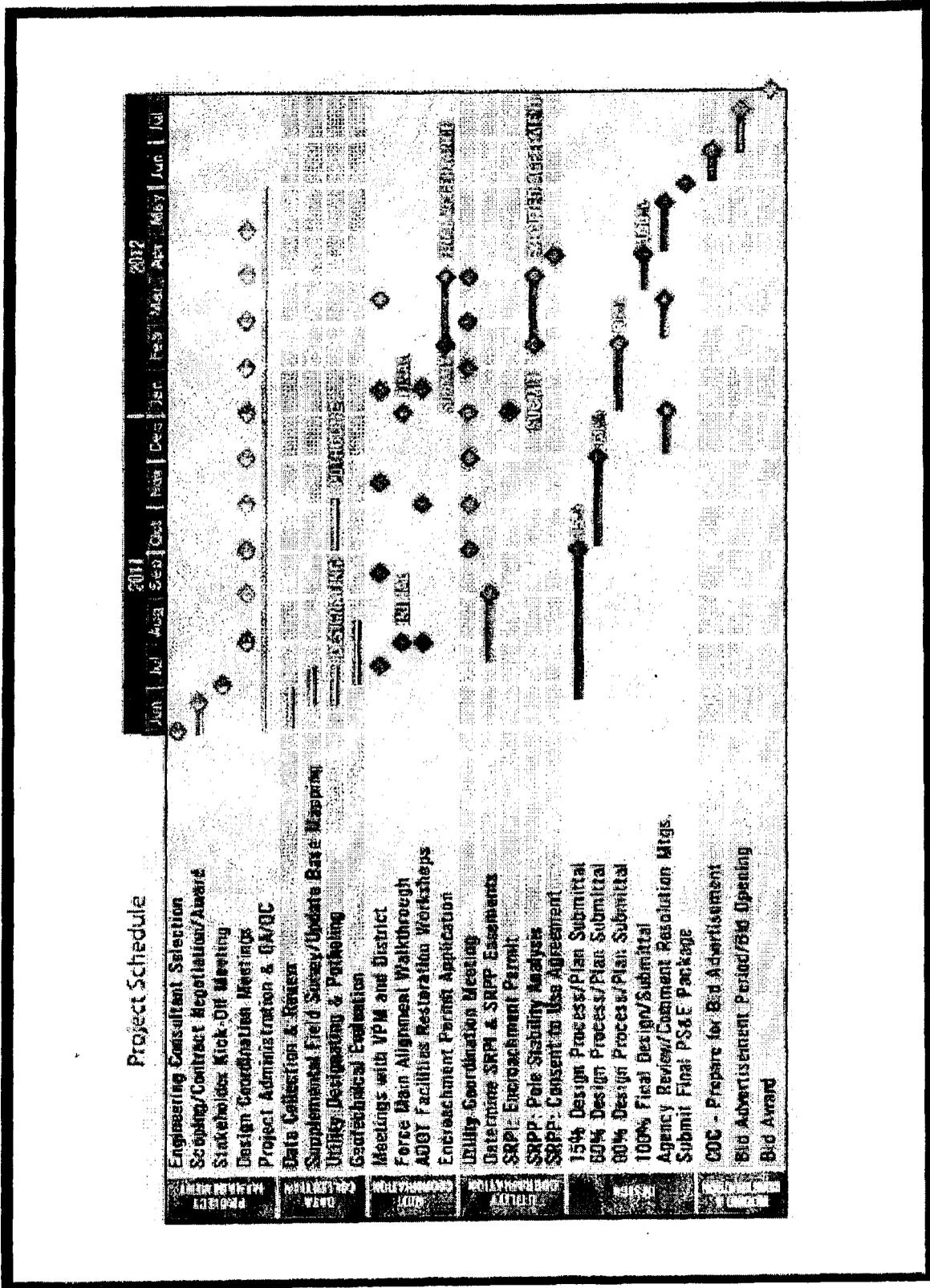


EXHIBIT E QUALITY CONTROL PLAN

A) Introduction

AZTEC creates a project specific work plan or Project Work Plan (PWP) to direct work efforts as part of each project. The AZTEC Quality Control Plan (QCP) describes minimum required Quality Control (QC) efforts for the company and will be referenced by each PWP. Any additional project specific QC requirements will be specified in the PWP. Any additional discipline specific QC related documents such as checklists or specialized QC processes may be included within the Appendices of the PWP. This QCP is intended to be a living document subject to review, improvements and updates on a regular basis.

Implementation of a comprehensive and well-executed QCP will result in superior quality deliverables, shorter review times and a satisfied client. AZTEC developed this QCP to ensure preparation of quality products and compliance with Client requirements. The AZTEC Project Manager is the person responsible for executing the QCP. AZTEC's QC processes consist of Production Processes, Peer Check Reviews, Independent Check Reviews and Auditing. No deliverable will be submitted to the Client until all internal reviews are complete and all comments have been appropriately addressed.

B) QC Processes

There are four necessary processes for the successful execution of AZTEC's QCP:

1. Production (Redlining Procedure)
2. Peer Check Review
3. Independent Check Review
4. Auditing

Without the completion of these items, the production of any deliverable shall be considered incomplete and is not permitted for distribution. Definitions associated with these processes are included at the end of this document.

PRODUCTION FLOWCHART (Redlining Procedure)

STEP 1

Originator

- Marks in **RED** for corrections, additions or deletions on Document 1.
- Initials and dates Document 1 in **RED**.
- Marks in **BLACK** (pencil) comments or instructions on Document 1.

STEP 2

Corrector

- Implements the corrections to Document 1.
- Marks in **GREEN** each item as it is corrected on Document 1.
- Initials and dates Document 1 in **GREEN** under the Originator's initials and date.
- Make a new document (Document 2).
- Staples Document 2 to Document 1 thus creating the Redline Plan Set and places a copy of Document 2 in the Status Sheet Binder as applicable.
- Verifies that all the requested changes were made prior to forwarding to Verifier – the Corrector shall not put any additional marks on Document 1 or 2 while verifying the corrections were done. If the Corrector determines that all the requested changes were not made, the documents will be revised as needed prior to forwarding to Verifier.

STEP 3

Verifier

- Marks in **BLUE** on Document 1, each requested change that has been correctly completed and marks in **YELLOW** on Document 2 the correctly implemented change.
- Marks in **BLUE** on Document 1, each requested change that has been incorrectly corrected or missed and re-marks in **RED** on Document 2 the requested change.
- Initials and dates Document 1 in **BLUE**, initials and dates Document 2 in **RED** and returns the Redline Plan Set to the Originator as applicable.

NOTES:

The Originator and Verifier can be (and usually are) the same person in this procedure. In order to ensure that all redlined drawings are kept together and to track the number of revisions, each succeeding print and redline is to be stapled to the preceding one. This is to be done for each plan sheet. Never throw away redlined drawings. At the completion of the project design, the Originator will turn in the Redline Plan Set for filing. No changes shall be made to any plan sheet that is redlined and not attached to the Redline Plan Set. Whenever a drawing is plotted, the Corrector shall insert a copy into the Status Sheet Binder. The old sheet shall be removed and discarded during the design phase only. The print in the Status Sheet Binder shall reflect the current status of each drawing at all times. After the PS&E submittal, the signed and sealed sheets are not to be removed from the Status Sheet Binder. In the event there is an addendum during the bidding stage or a change order during construction, the old sheet is to be crossed out in red with a note AZTEC Quality Control Plan 3 March 22, 2007 saying "superseded" with the date of the revision. Typically, the Corrector will note the addendum or change order number on the sheet. The new sheet is to be placed on top of the superseded sheet.

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PEER CHECK REVIEW FLOWCHART

STEP 1

Peer Reviewer

- Marks in **RED** recommended corrections, additions or deletions and comments on Document 1.
- Initials and dates Document 1 in **RED**.

STEP 2

Originator

- Reviews all Peer Reviewer recommendations.
- CIRCLES** in **GREEN** each item that Originator will take action on.
- CROSSES OUT** in **GREEN** each item that no action will be taken on. Must include reason and Peer Reviewer's initials after agreement that no action is necessary.
- Initials and dates in **GREEN** under the Peer Reviewer's initials and date.
- Transfers all agreed upon changes into Redline Plan Set or other document as appropriate.
- Follows PRODUCTION FLOWCHART procedures to implement changes.
- Forwards Peer Reviewer a print of the corrected Document 2 along with Document 1.

STEP 3

Peer Reviewer

- Marks in **BLUE** on Document 1 each agreed upon change that has been correctly completed.

- Marks in **BLUE** on Document 1 each agreed upon change that has been incorrectly completed or missed and re-marks in **RED** on Document 2 the recommended change.
 - Initials and dates Document 1 in **BLUE** and returns both reviewed documents to the Originator for filing or revising.
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INDEPENDENT CHECK REVIEW FLOWCHART

STEP 1

Checker

- Receives relevant background data including any Check Review comments if available or applicable.
- Marks in **YELLOW** every item that is certified to be correct on Document 1.
- Marks in **RED** recommended corrections, additions or deletions and comments on Document 1.
- Initials and dates Document 1 in **RED**.

STEP 2

Originator

- Reviews all Checker recommendations.
- CIRCLES** in **GREEN** each item that Originator will take action on.
- CROSSES OUT** in **GREEN** each item that no action will be taken on. Must include reason and Checker's initials after agreement that no action is necessary.
- Initials and dates in **GREEN** under the Checker's initials and date.
- Transfers all agreed upon changes into Redline Plan Set or other document as appropriate.
- Follows PRODUCTION FLOWCHART procedures to implement changes.
- Forwards Checker a print of the corrected Document 2.

STEP 3

Checker

- Marks in **BLUE** on Document 1 each agreed upon change that has been correctly completed and marks in **YELLOW** on Document 2 the correctly implemented change.
- Marks in **BLUE** on Document 1 each agreed upon change that has been incorrectly completed or missed and re-marks in **RED** on Document 2 the recommended change.
- Initials and dates Document 1 in **BLUE** and returns both checked documents to the Originator for filing or revising.

NOTE:

The Checker's initials should be included in the appropriate box on the plan or calculation sheet once the Independent Check Review is complete. Multiple initials should be included in the box if the information was reviewed by multiple checkers.

Additional requirements pertaining to design computations are included in the Calculations Section of the QCP.

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AUDITING

The AZTEC Project Principal (or their written designee) is the person responsible for the overall management and monitoring of the QCP for each project. The Project Principal will oversee and audit QC processes for work produced by AZTEC. This person will specifically be responsible for seeing that Independent Check Reviews and Peer Check Reviews are completed as appropriate for all work products and for verifying that the original QC documents are filed correctly. The results of the audit will be documented in writing and distributed to the AZTEC Project Manager and the project file at each major milestone.

C) Data Collection

Data collection is an essential step that establishes the foundation for the successful and efficient completion of any task. It is the time in the process to pull together as much background information about the project and site as possible. It is also a step in the process where interaction begins with the client to share the information necessary for the task(s). The process will vary by discipline, but can include collection and review of as-built plans, obtaining/reviewing data stored in a variety of repositories/data bases, and project photographs, survey, mapping, or environmental issues. The data collection process should be a thorough and systematic effort. The process begins with the creation of a checklist of items and known data that will be significant to the completion of the project, along with the anticipated source of the information. To assure that the data collection and filing of that information is complete; the checklist shall include the following minimum information: date, source of information, collector, and title/type of information.

D) Site Visits & Field Reviews

Safety must be considered prior to any site visit or field review. Notes and photos from each site visit or field review will document the existing conditions observed such as area land use, access points, topographic features, roadway configuration, etc. A photo log and field notes will be stored in either the project file or electronic folder. The field notes at a minimum will include the time, date, attendees, purpose of the field visit, and details of the project photographs taken during the visit. Meeting Minutes will be prepared as applicable. Opinions rendered during a site visit or field review must be documented in writing per the requirements of the QCP (See also the Communications and Post Design Services sections).

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E) Communications

Communications that are produced for internal or external distribution require different intensities of QC depending on the classification of the document. These documents are classified into three levels of importance: Red, Yellow and Green. If you are unsure about the classification of a certain document, discuss this with the AZTEC Project Manager.

RED LEVEL COMMUNICATION

Red level documents include all communications that provide a professional opinion or recommendation for the use/execution by others. Quality Control of these communications is of the utmost importance for AZTEC. Red level communications require an Independent Check Review at a minimum. The process to check the document shall follow the Independent Check Review Flowchart. The file copy of the communication shall include the completed Check Review documents containing the initials and dates of the Checker and Originator. Much of this level of communication requires a seal/signature by a registered professional or qualified technical staff member. The applicable Board of Registration or regulatory agency requirements must also be met. Examples of Red Level Communications: Documents containing a recommended course of action or design and/or construction criteria/requirement.

YELLOW LEVEL COMMUNICATION

Yellow level documents include all communications that can be defined as essential to the completion of a task or a project or as a function of our business. Quality Control of these communications is important to keep the project moving forward in an efficient and accurate direction. These documents pose a lower level of risk to the company, but can affect the completion of the project. Yellow level communications require a Peer Check Review at a minimum. The process to review the document shall follow the Peer Check Review Flowchart. The file copy of the communication shall include the completed Peer Check Review documents containing the initials and dates of the Peer Reviewer and Originator. Examples of Yellow Level Communications: Engineering Reports, Environmental Reports, Project Fee Proposals, Scopes of Work/Basis of Estimates, Minutes and Memos, Permits and documents considered "sensitive" in content.

GREEN LEVEL COMMUNICATION

Green level documents include all other communications that are produced. These documents make up the vast majority of the day-to-day communications. While there is lesser risk with these documents, their accuracy reflects upon AZTEC and the client. While no Independent Check or Peer Check Review of these documents is required, an individual review for items such as spelling and grammar shall be conducted. Additionally, each AZTEC employee's computer shall be set up to automatically check for spelling and grammatical errors.

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Examples of Green Level Communications: Project Meeting Announcements, Agendas, and general correspondence including e-mail.

F) Reports

Written material in a report format is often a primary deliverable that is required to substantiate various technical aspects of a project. These reports often constitute a form of "authorization" or "justification" for the project. Therefore, their completeness and correctness is of the highest importance. The requirements for the contents of these reports vary and may be contained within the project's contract or within client guidelines for the specific type of report. At a minimum, the following items should be included in each report:

1. Cover or Title Page
2. Table of Contents
3. References
4. Specific Client Report Content Requirements
5. Filename and Path (as allowed by the client for AZTEC internal purposes)

In addition, the following process should be followed for all reports:

1. Check for Client Format and Review Process requirements as applicable. For example, requirements for use of company logos, or the need for preview copies before team distribution.
2. Review the draft outline of a report with the AZTEC PM prior to starting, to assure that the approach to complete the report meets the criteria as established by the client and is correct and comprehensive.
3. An Independent Check Review shall be completed for all reports containing a recommended course of action and/or design or construction criteria/requirement. At a minimum, a Peer Check Review will be completed for all reports before any submittal to the client. This review will verify that the requirements for the report have been satisfied and the contents of the report are correct, as follows:
 - a. Technical content is checked for accuracy and documentation and that the format is logical and easy to follow.
 - b. Report covers should be reviewed for correct project name, project numbers, client and spelling.

- c. Table of Contents shall be reviewed for correct page numbers, titles, tables, figures, and technical appendices.
- d. All appendices include a page number for reference purposes.
- e. Figures shall be reviewed for correctness and readability. Figures should generally meet standards for other graphic material (legibility, north arrows, legends, non-ambiguous notes, scale, line work, orientation of drawing for reading notes, title format, lack of crowding, etc.). If produced in color, graphics should also be reproducible in black and white.
- f. Tables should be adequately titled, headings should be clear and consistent (including any subdivisions) within the table, non-standard abbreviations AZTEC Quality Control Plan 12 March 22, 2007 should be explained, and columns of figures should be formatted to permit easy and accurate scanning.
- g. Appropriate technical references are provided.
- h. AZTEC's filename and path are provided as allowed by the client.

G) Calculations

Design computations or calculations are an integral part of the permanent project records and could be needed long after many of the details, decisions, oral instructions, etc., have been forgotten. Much of the reasoning, thinking and data used during project development never appears on the plans and can only be found in the design computations. For this reason, it is imperative that computations be orderly, complete and easily followed from any page even by those who are not familiar with the project. This is particularly important when we must furnish other agencies and engineers with our computations since they provide documentation of our work.

The following items shall be followed for all calculations to achieve the desired objectives:

1. They shall be organized in binders with logical dividers, a Table of Contents and sequential page numbers.
2. They shall use standard AZTEC or electronically generated calculation sheets with a header/footer containing the following minimum information: Designed By, Checked By, Date, Subject, Project Number, Page Number and full File Name and Path.
Scratch paper calculations are not acceptable.
3. All handwriting shall be clearly legible and printed.
4. All formulas shall be presented on the printed version of the calculations, no hidden formulas are acceptable.
5. The scope and any pertinent data such as specifications used, stresses, loadings, etc. should be stated at the outset. Publications should be cited as appropriate.
6. The calculation shall clearly state the purpose, e.g. detailing for Detail X, preliminary calculation for earthwork volume.
7. The plans and bid documents shall accurately correspond with the calculations.
8. Simple sketches shall be used to illustrate parts of the calculation that are not simple or obvious. Notes shall be added to clarify reasoning and/or to cross reference decisions and directions from the client.
9. State all units.
10. Computer program output shall be neatly organized with a title page as the front sheet, explaining both the purpose of the run and the results. Program output sheets are an important part of design computations and shall be included in the calculation binder.
11. The Checker's set of calculations shall be bound with the original set of calculations after they have been corrected.

An Independent Check Review shall be completed for all calculations pertaining to a recommended course of action and/or design or construction criteria/requirement or before any submittal to the client.
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H) Quantities

Quantity calculations are often an integral part of the project development process. For this reason, it is imperative that computations be orderly, complete and easily followed. This is particularly important when we must furnish others with our computations since they provide documentation for our work.

Typically, the Originator will organize the quantity calculations by bid item number. An Independent Check Review shall be completed for all quantity calculations before the final submittal to the client. A Peer Check Review shall be completed for all quantities before each submittal to the client. The review will verify that the requirements for the quantities have been satisfied and the quantities are correct. The quantity calculations will meet the requirements of the Calculations Section of the QCP.

I) Specifications

Specifications provide a means for clarifying the project plans, often overriding the plan information, and also detail exactly what work and materials are included in each activity of the project. The specifications also provide the means to communicate to the contractor any unusual project conditions or project requirements. An Independent Check Review shall be completed for all specifications before the final submittal to the client. A Peer Check Review shall be completed for all specifications before each submittal to the client. The review will verify that the requirements for the specifications have been satisfied and the contents of the specifications are correct.

J) Cost Estimates

The assigned AZTEC Cost Estimator for the project shall receive the bid items, units and quantities from project team members. The information received from project team members shall be put into a quantity backup binder. If the information was received in an electronic file, the information shall be printed and inserted into the quantity backup binder. The Cost Estimator will input the information into the cost estimate spreadsheet. When the estimator has completed inputting the information the estimate should be printed. The estimator should verify that the estimate was entered correctly. Unit prices for each bid item will be determined based on the calculated quantities in conjunction with recently awarded similar projects. The AZTEC Project Manager and Project Principal or written designees will review all cost estimate related data to assure:

1. Compliance with client formats.
2. Construction and contingency items are adequately covered.
3. Unit costs are reasonable and reflect current site and market conditions.

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The Project Manager and Project Principal or written designees shall approve that the estimate is complete and an Independent Check Review is required for all submittals to the client.

K) Post Design Services

Post Design Services refer to providing assistance during the construction phase of the project. A Post Design Log will be maintained to document incoming and outgoing documents received on each project. These services can include the following items:

1. Coordination with the construction contractor to answer/resolve any design related questions or issues that arise.
2. Participation in the Pre-Construction Conference.
3. Participation in construction meetings when requested.
4. Review of shop drawings, project information, shop and material certifications/test results, and alternate products for compliance with the Contract Documents.
5. Responding to Requests for Information (RFI) from the field.
6. Review requests for contractor change orders and provide recommendations.

Opinions rendered during Post Design meetings or communications must be documented in writing. Many of these activities are considered Red Level Communications as a recommended course of action or design and/or construction criteria/requirement is involved. The documents produced during Post Design Services shall follow the procedures outlined in the QCP and any additional Client requirements. The use of a review stamp with standardized responses will be used during the review of shop drawings, shop and material certifications/test results, RFI's and other contractor submittals.

L) Definitions

AZTEC produces deliverables ranging from plan sheets to cost estimates. The following definitions have been developed regarding the QCP processes of these deliverables:

Auditing – The process by which QC efforts are monitored and documented.

Checker – Person responsible for independently checking the deliverables to ensure conformance with applicable specifications and preparation criteria. Those assigned to this task will thoroughly check the document but will not do any rework. Rework, if required, is the responsibility of the originator of the document. The Checker shall independently verify technical adequacy, accuracy, comprehensiveness, clarity, and conformance to any applicable standards and formats. The Checker is responsible for ascertaining that the deliverable is consistent with the corresponding calculations, and signing off that such calculations have been properly checked. The Checker's initials should be included in the appropriate box on the plan or calculation sheet once the Independent Check Review is complete.
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Computer Aided Engineering (CAE) Manual – AZTEC's document that contains the current standards and procedures for CADD production. All CADD operators must have and be familiar with AZTEC's CAE Manual along with any supplemental project specific requirements (as applicable).

Corrector – Person who implements the requested redlines or requested change.

Independent Check Review – The process by which an independent reviewer (Checker) checks and certifies deliverables for conformance with applicable specifications and preparation criteria.

Originator – Person who develops redlines or requests changes and maintains full ownership and responsibility for the production of the deliverable. This person's initials are those entered into the "Design" block on a plan or calculation sheet.

Peer Check Review – The process by which senior level content reviews occur.

Peer Reviewer – The senior level person performing content reviews.

Production – The process by which deliverables are generated.

Redline Plan Set – A stack of prints, stapled together that documents all requested changes, which is maintained in an organized and identifiable location in the Originator's work area.

Status Sheet Binder – A record set of the latest prints, which is maintained in a separate binder and located in the project plan area.

Verifier – Person who verifies that the changes made by the Corrector have been correctly implemented. This person is typically the Originator.