

**BID DOCUMENTS
FOR**

**SANITARY SEWER INTERCEPTOR
IMPROVEMENTS**

**City of Aztec: 2016-549
NM Environment Dept.: CWSRF 021**

CITY OF AZTEC, NEW MEXICO



March 2016

PREPARED BY:

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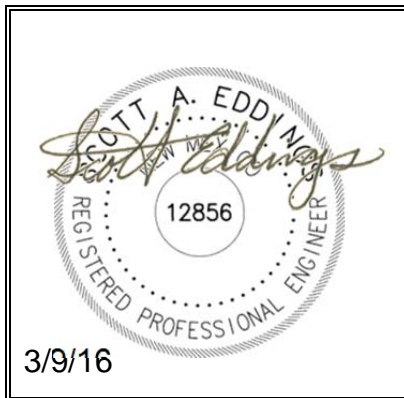
PROJECT MANUAL

TITLE: **SANITARY SEWER INTERCEPTOR IMPROVEMENTS**

DATE: MARCH 2016

OWNER: CITY OF AZTEC
201 W. CHACO ST.
AZTEC, NM 87410
PHONE (505)334-7606

ENGINEER OF RECORD: HUITT-ZOLLARS, INC.
333 RIO RANCHO DRIVE NE, SUITE 101
RIO RANCHO, NM 87124
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"The technical material and data contained in the specifications were prepared under the supervision and direction of the undersigned, whose seal as a Registered Architect, licensed to practice in the State of New Mexico, is affixed to the left." "All questions about the meaning or intent of these documents shall be submitted only to the Engineer of Record, stated above, in writing."

Scott A. Eddings
Professional Engineer

12856
NM License No.

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CITY OF AZTEC
Invitation For Bid #2016-549
Sanitary Sewer Interceptor Improvements

Sealed bids for the project will be received at the City of Aztec Finance Department, Attn: Kathy Lamb, Finance Director, 201 W. Chaco, Aztec, NM 87410. Sealed bids will be received until April 28, 2016 at 3:00 P.M. MDT and then opened at the City of Aztec City Commission Room and read aloud. The bid is subject to Purchase Order Terms and Conditions, Bidding Requirements and Specifications.

This project is wholly or partially funded with United States Environmental Protection Agency funds, and therefore must comply with all federal cross cutter requirements. Neither the United States nor its department's agencies or employees is or will be party to this invitation for bids or any resulting contract. This procurement will be subject to regulations contained in 40CFR part 31 including the Davis Bacon Act requirements.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended.

To ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to compete for procurements funded by EPA financial assistance, all Bidders shall make the six good faith efforts as outlined by EPA at http://www.epa.gov/osbp/dbe_efforts.htm. The Bidder must make a good faith effort to solicit and hire Disadvantaged Business to meet the goals outlined in EPA XP-215. A good faith effort requires that the Contractor: 1) Complete the affirmative steps outlined in XP-215, 2) Submit XP-215 with the bid proposal, 3) Submit with the bid proposal proof that affirmative steps have been taken and this should include copies of advertisements and letters of solicitation. A Proposal that omits XP-215 or does not support that a good faith effort was made will be considered non-responsive and the Bid Proposal rejected.

Project Description:

Installation of approximately 5,500 LF of 24" HDPE sanitary sewer interceptor, 2,300 LF of 18" HDPE sanitary sewer interceptor, new manholes, by-pass pumping street restoration are part of the project.

Plans, Specifications and other Contract Documents, including instructions to Bidders and Bid Forms. Files are available online by accessing the City's purchasing webpage through www.aztecnm.gov or by contacting Kathy Lamb at (505) 334-7653; klamb@aztecnm.gov.

A **Mandatory** Pre-Bid Conference will be held on March 28, 2016 at 1:30 P.M. in the Library Conference Room located at 319 S Ash St, Aztec, NM. Attendance at the Pre-Bid Conference for this project is mandatory to qualify to submit a bid for this project. Last day for questions will be Friday, April 22, 2016.

Bidders are asked to be patient while downloading these files from the website. Bidders are responsible for the cost associated with printing hardcopy Construction Plans and Contract Documents from these files.

Publication Date: March 20, 2016 –Farmington Daily Times
 March 27, 2016 – Farmington Daily Times
 April 3, 2016 – Farmington Daily Times

INSTRUCTIONS TO BIDDERS

1. Defined Terms.

Terms used in these Instructions to Bidders which are defined in the APWA NM Standard Specification for Public Works have the meanings assigned to them in the General Conditions.

Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

- 1.1 ENGINEER – City Engineer is employed by the City of Aztec, NM
- 1.2 BIDDER — one who submits a Bid directly to OWNER as distinct from a sub-bidder, who submits a bid to a BIDDER.
- 1.3 Issuing Office –the office on behalf of which this IFB is issued by the City. The Issuing office is the **SOLE POINT OF CONTACT** during the procurement process. Any inquiries or requests during the procurement process shall be directed to the issuing office.
- 1.4 Distribution Office — the office from which the Bidding Documents are to be distributed as indicated in the Advertisement for Bids or Invitation to Bid.
- 1.5 Successful Bidder — the responsible BIDDER offering the lowest, responsive bid to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

2. Copies of Bidding Documents.

- 2.1 Complete copies of Bidding Documents, APWA NM Standard Specifications for Public Works may be obtained from the Distribution Office as indicated in the Advertisement for Bids.
- 2.2 The Standard Specifications for the Project are the New Mexico Standard Specifications for Public Works Construction, **Current Edition**, as amended and published by the New Mexico Chapter of the American Public Works Association; the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, Current Edition, as amended and published by the New Mexico State Department of Transportation and the City of Aztec Standard Drawings. Copies of the Standard Specifications for Public Works Construction may be obtained from the City of Aztec. Copies of

the Standard Specifications for Highway and Bridge Construction may be obtained online at <http://www.dot.state.nm.us>. The City shall make such determinations as necessary as to which Standard Specifications govern and control in the event of a conflict, discrepancy, or request for clarification from the Contractor.

- 2.3 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.4 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3. Qualifications of BIDDERS.

- 3.1 OWNER may make such investigations it deems necessary to determine the ability of the BIDDER to perform the Work, and the BIDDER shall within seven (7) calendar days furnish to the OWNER all such information and data for this purpose as the OWNER may request. OWNER reserves the right to reject any bid if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the Work contemplated herein.
- 3.2 BIDDER shall have a New Mexico Contractor's License and all classifications required to perform the Work, and shall provide such information in the space provided in the Bid Form.
- 3.3 In order to submit a bid valued at more than sixty thousand dollars (\$60,000) in order to respond to a request for proposals or to be considered for award of any portion of a public works project greater than sixty thousand dollars (\$60,000) for a public works project that is subject to the Public Works Minimum Wage Act [Section 13-4-10 NMSA 1978, *et seq.*], the CONTRACTOR, serving as a prime contractor or not, shall be registered with the Labor and Industrial Division of the New Mexico Department of Workforce Solutions. Each CONTRACTOR, prime contractor or subcontractor is required to be registered pursuant to this subsection.

4. Examination of Contract Documents and Site.

- 4.1 It is the responsibility of each BIDDER before submitting a Bid:

- 4.1.1 To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents (including “technical data” referred to below);
 - 4.1.2 To visit the site(s) to become familiar with and satisfy BIDDER as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work;
 - 4.1.3 To consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;
 - 4.1.4 To study and carefully correlate BIDDER's knowledge and observations with the Contract Documents and such other related data; and
 - 4.1.5 To promptly notify OWNER of any and all conflicts, errors, ambiguities or discrepancies which BIDDER may discover in or between the Contract Documents and such other related documents.
- 4.2 Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities or others, and OWNER and ENGINEER make no guarantees as to the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 4.3 Before submitting a Bid each BIDDER will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto or which BIDDER deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 4.4 On request, OWNER will provide each BIDDER access to the site to conduct such examinations, investigations, explorations, tests and studies as each BIDDER deems necessary for submission of a Bid. BIDDER must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests and studies.

- 4.5 Reference is made to the Supplementary Specifications for the identification of the general nature of any work that is to be performed at the site by OWNER or others (such as utilities and other prime contractors) that relates to the work for which a Bid is to be submitted. On request, OWNER will provide to each BIDDER for examination access to or copies of Contract Documents (other than portions thereof related to price) for such work.
- 4.6 The submission of a Bid will constitute an incontrovertible representation by BIDDER that BIDDER has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that BIDDER has given OWNER written notice of all conflicts, errors, ambiguities and discrepancies that BIDDER has discovered in the Contract Documents and the written resolutions thereof by OWNER is acceptable to BIDDER, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
- 4.7 The provisions of the above items 4.1 through 4.7, inclusive, do not apply to Asbestos, Polychlorinated biphenyls (PCBs), Petroleum, Hazardous Waste or Radioactive Material covered by Paragraph 4.06 of the General Conditions.

5. Availability of Lands for Work, etc.

The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Contract Documents.

All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents. Access to lands used for offsite disposal of excess soil will be obtained and paid for by CONTRACTOR.

6. Interpretations and Addenda.

- 6.1 All questions about the meaning or intent of the Bidding Documents shall be submitted to OWNER in writing. Interpretations or clarifications considered necessary by OWNER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the

Issuing Office as having received the Bidding Documents. Questions received less than ten(10) calendar days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

- 6.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.
- 6.3 Each Addendum shall be a part of the Contract Documents to the same extent as though contained in the original documents and itemized listings thereof and all BIDDERS shall be bound by such Addenda. Each BIDDER shall ascertain, prior to submitting the bid, that the BIDDER has received all Addenda issued, and shall acknowledge receipt of each Addendum on his Bid Form.

7. Bid Security.

- 7.1 Each Bid must be accompanied by Bid Security made payable to OWNER in an amount of at least five (5%) percent of BIDDER's total bid amount and in the form of a certified or bank check or a Bid Bond on a form acceptable to the OWNER issued by a surety meeting the requirements of Paragraph 5.01 of the General Conditions.
- 7.2 The Bid Security is submitted as a guarantee that the BIDDER, if awarded the Contract, will promptly execute the Agreement in accordance with the Bid Form and in the manner and form required by the Contract Documents, will furnish good and sufficient bond for the faithful performance of the same and for the payment of all labor and materials, and furnish required certificates of insurance.
- 7.3 The Bid Securities of all BIDDERS except the three lowest will be returned promptly after the canvas of bids.
- 7.4 OWNER shall have the right to retain the Bid Security of the three apparent lowest BIDDERS until either (a) the Agreement has been executed and the Labor and Material Payment Bond and the Performance Bond and all required proof of insurance, including certificates of insurance, have been furnished to OWNER; (b) the time specified in the Bidding Documents has elapsed so that BIDDER may withdraw the Bid Proposal; or (c) all bids have been rejected, whichever occurs first.
- 7.5 If the Successful Bidder fails to execute and deliver the Agreement and furnish the required Performance Bond, Labor and Material Payment Bond and certificates of insurance within the required time period after receipt of the Notice of Recommendation to Award, OWNER may annul

the Notice of Recommendation to Award and the Bid Security of that BIDDER shall be forfeited to OWNER as liquidated damages, not as a penalty.

7.6 Bids submitted without the required Bid Security will not be considered.

7.7 The Performance Bond and the Payment Bond will be equal to one hundred (100%) percent of the contract price.

8. **Contract Times.**

The number of days within which, or the dates by which, the Work is to be substantially complete are set forth in the Bid Form.

9. **Liquidated Damages.**

Provisions for liquidated damages, if any, are set forth in the Bid Form.

10. **Substitute and “Or–Equal” Items.**

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or “or–equal” items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or “or–equal” item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement, unless noted in the Specifications. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Paragraph 6.05 of the General Conditions and may be supplemented in the General Requirements.

11. **Subcontractors, Suppliers and Others.**

11.1 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to OWNER in advance of the Notice of Award, the apparent Successful Bidder, and any other BIDDER so requested, shall, within seven calendar (7) days request by OWNER, submit to OWNER a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by OWNER. An OWNER or ENGINEER who after due investigation has reasonable objection to any proposed Subcontractor,

Supplier, other person or organization, may before the Notice of Award is given request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder may submit an acceptable substitute, that BIDDER's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and OWNER may consider such price adjustment in evaluating Bids and making the contract award. If the apparent Successful Bidder declines to make any such substitution, he will not thereby sacrifice his Bid Security. Any Subcontractor, other person or organization so listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award shall be deemed acceptable to OWNER. This subsection does not apply to the BIDDER'S listing of Subcontractors for Compliance with the Subcontractor's Fair Practices Act, which must be complete at the time the Bid is submitted to OWNER.

- 11.2 Some Public Works Projects may be subject to the provisions of the "Subcontractors Fair Practices Act" (Chapter 18, Laws 1988; Sections 13-4-31 through 13-4-43 NMSA 1978). When this Act is applicable, BIDDER shall comply with the requirements set forth in the Supplementary Conditions of these Bidding Documents.
- 11.3 No CONTRACTOR shall be required to employ any Subcontractor, Supplier, other person or organization against whom CONTRACTOR has reasonable objection.

12. Bid Form.

- 12.1 Prices shall be filled in for all items on the Bid Form, including alternates as may be required on the Bid Form. The price for each item shall include its pro-rata share of overhead, profit and insurance. Prices shall also include any and all license and royalty fees for products, materials and processes. Prices shall be shown in numerals in ink, printed or typed in the spaces provided. Any alterations to the bid amounts by erasures or by interlineations shall be initialed by the signer of the Bid Form.
- 12.2 BIDDER shall include all applicable taxes, except New Mexico Gross Receipts Tax, in all bid amounts, including Lump Sum, Unit Price and Alternate Bid amounts. The Bid Form shall contain a separate entry for New Mexico Gross Receipts Tax immediately preceding the Base Bid. All Alternates shall contain a separate entry for New Mexico Gross Receipts Tax immediately preceding the total amount of the Alternate. No Unit Prices nor Lump Sum Amounts contained within the bid shall include New Mexico Gross Receipts Tax.
- 12.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by

evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

- 12.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 12.5 All names must be typed or printed in ink below the signature.
- 12.6 BIDDER shall acknowledge receipt of all Addenda by entering the number and date of each addendum in the space provided on the Bid Form.
- 12.7 The address and telephone number for communications regarding the Bid must be shown.
- 12.8 If BIDDER is an out-of-state corporation, evidence of authority to conduct business as an out-of-state corporation in New Mexico shall be provided in accordance with Paragraph 3 above.
- 12.9 BIDDER shall enter his New Mexico Contractor's License Number and Classifications in the space provided on the Bid Form.
- 12.10 To ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to compete for procurements funded by EPA financial assistance, all Bidders shall make the six good faith efforts as outlined by EPA at http://www.epa.gov/osbp/dbe_efforts.htm. The Bidder must make a good faith effort to solicit and hire Disadvantaged Business to meet the goals outlined in EPA XP-215. A good faith effort requires that the Contractor: 1) Complete the affirmative steps outlined in XP-215, 2) Submit XP-215 with the bid proposal, 3) Submit with the bid proposal proof that affirmative steps have been taken and this should include copies of advertisements and letters of solicitation. A Proposal that omits XP-215 or does not support that a good faith effort was made will be considered non-responsive and the Bid Proposal rejected.
- 12.11 Bidder shall submit the following forms with the Bid Form, XP-211-Bidder's Certification, XP-215 – MBE/WBE/SBRA Utilization Information Sheet, XP-315 – Davis Bacon Act Certification, 5700-49 – Certification Regarding Debarment and 6100-4 DBE Subcontractor Utilization Form.

13. **Submission of Bids.**

Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of BIDDER and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

Delays or Closing of City Offices: In the event that City offices are officially on a delayed opening for any reason (i.e. inclement weather) and City offices are not open at least two (2) hours prior to bid opening, the deadline for bid and proposal submissions will be delayed for exactly the amount of time indicated in the official City announcement. For example, if City offices are on a two (2) hour delay, deadline for receipt of bids and proposals due prior to 12:00 p.m. will be delayed by two (2) hours and bids due after 12:00 p.m. will be due at their regularly scheduled time.

Also, if City offices are officially closed for any reason (i.e. inclement weather) through the entire or remainder of a business day, prior to deadline for submission of bids or proposals, bids and proposals will be due at the same time on the following business day.

14. **Modification and Withdrawal of Bids.**

15.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the scheduled closing time for receipt of Bids.

15.2 If, within twenty-four (24) hours after Bids are opened, any BIDDER files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that BIDDER may withdraw its Bid and the Bid security will be returned. Thereafter, that BIDDER will be disqualified from further bidding on the Work to be provided under the Contract Documents.

15. **Opening of Bids.**

BIDDERS are invited to be present at the Bid Opening. The person(s) reading the bids will adhere to the following procedure prior to reading the amount of the bid:

16.1 Read name of BIDDER, BIDDER's New Mexico contractor's license number and classification, and when applicable the BIDDER's Resident Contractor Number.

- 16.2 Read the amount of the Bid Security.
- 16.3 Verify BIDDER's acknowledgment of Addenda.
- 16.4 Determine whether the Bid Proposal is signed.
- 16.5 Verify submittal of BIDDER's Listing of Subcontractors for compliance with Subcontractors Fair Practices Act.
- 16.6 Determine whether other requirements are met.

If any of the above requirements have not been met, the bid shall be read after the deficiency or deficiencies have been announced and noted.

16. Bids to Remain Subject to Acceptance.

All Bids shall remain subject to acceptance for the period of time after the scheduled closing time for receipt of bids as indicated on the Bid Form, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.

17. Award of Contract.

- 17.1 OWNER reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced or conditional Bids and to reject the Bid of any BIDDER if OWNER believes that it would not be in the best interest of the Project to make an award to that BIDDER, whether because the Bid is not responsive or the BIDDER is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by OWNER. OWNER also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder. OWNER reserves the right to cancel the opportunity for submission of bids. OWNER further reserves the right to reject for OWNER's convenience all bids submitted. BIDDERS shall not be entitled to recover damages of any nature against OWNER for OWNER's rejection of all bids, for cause or for convenience.
- 17.2 Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

- 17.3 In evaluating Bids, OWNER may consider the qualifications of BIDDERS, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 17.4 OWNER may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 17.5 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of BIDDERS, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.
- 17.6 If a Contract is awarded, it will be awarded to the lowest responsive bid submitted from a responsible BIDDER on the Base Bid shown on the Bid Form; provided, however, that if the Bid Form is a Unit Price Bid Form and there is a discrepancy between the amount shown as the Base Bid and the actual total amount of the Base Bid determined by multiplying the Unit Price shown for each Bid Item by the Estimated Quantity shown for that Bid Item, adding each such amount to obtain a subtotal amount and then adding the New Mexico Gross Receipts Tax amount determined by multiplying the subtotal amount by the New Mexico Gross Receipts Tax percentage given on the Bid Form, it will be awarded to the lowest responsible BIDDER on the actual total amount of the Base Bid; provided further, that when Alternates are to be accepted by OWNER, it will be awarded to the Responsible BIDDER who bids the lowest combined bid of the Base Bid and all accepted Alternates. For each Alternate, New Mexico Gross Receipts Tax shall be shown as a separate entry after the subtotal using the method described above, and shall be followed by a total derived by adding the subtotal and Gross Receipts Tax amounts. Alternates, if any, shall be accepted by the City, at its sole discretion, in any order or combination thereof.
- 17.7 In the event that two (2) or more of the bids submitted are identical in price and are the low bid, the OWNER may award by lottery to one of the identical low Bidders.

17.8 Preference: Various preferences will be afforded to an Offeror who qualifies as a resident Offeror in accordance with New Mexico State Law and City of Aztec Ordinance. This section shall not apply when the expenditure includes federal funds for a specific purchase.

17.9 If the Contract is to be awarded, the OWNER will give the apparent Successful Bidder a Notice of Recommendation to Award within the period specified in the Bid Form unless the BIDDER and the OWNER agree to extend the period specified.

18. Signing of Agreement.

If and when OWNER gives a Notice of Recommendation to Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten (10) calendar days thereafter, BIDDER shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Performance and Payment Bonds in accordance with Paragraph 5 of the General Conditions and the Supplementary Conditions, and Certificates of Insurance in accordance with Paragraph 5.4 of the General Conditions and the Supplementary Conditions. Within ten (10) calendar days following the Award of Contract by OWNER, OWNER shall deliver one fully signed counterpart to CONTRACTOR. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

19. Pre-Bid Conference.

When a pre-bid conference date is given in the Advertisement for Bid or by Addendum, the conference shall be conducted to explain the Project. Attendance at the pre-bid conference shall be mandatory only when so required in the Advertisement for Bids or Addendum. When attendance is mandatory, failure to attend shall disqualify the prospective BIDDER from submitting his Bid. Whenever attendance is not specified as mandatory, prospective BIDDERS are encouraged to attend and should be prepared to ask questions or request clarifications regarding the Project and Bidding Documents. Nothing stated at the pre-bid conference shall change the Bidding Documents unless a change is made by Addendum. When attendance is not mandatory, failure of a BIDDER to attend the pre-bid conference shall mean that the Bidding Documents are clear, unambiguous, and acceptable to all non-participants, with respect to all who submit bids.

20. Guarantee Provisions.

The CONTRACTOR shall guarantee the Work as provided in the General Conditions and Supplementary Conditions.

21. **Affirmative Action Program.**

The CONTRACTOR shall comply with the Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements in the Supplementary Conditions.

22. **Wage Rates.**

The BIDDER's attention is directed to the fact that wages to be paid on this Project shall not be less than the prevailing wage rates as listed by the New Mexico State Office of Labor Commissioner and, where applicable, the prevailing Federal Wage Rate Decision listed by the U.S. Department of Labor in effect at the scheduled closing time for receipt of bids.

In the event more than one (1) wage scale applies to the Project, the appropriate wages to be paid to the various classes of laborers and mechanics employed under the contract shall be the highest prevailing wages for each job classification for the particular type of construction being performed by the construction worker.

23. **Permits**

The CONTRACTOR shall bear the sole responsibility of securing and paying for permits, fees, and licenses required for execution of Work as applicable at the time of receipt of bids.

24. **Collusion**

No BIDDER shall be interested in more than one bid. Collusion among BIDDERS or the submission of more than one bid under different names by any firm or individual shall be cause for rejection of all bids without consideration.

25. **Worker's Compensation Insurance/Non-Resident Contractors.**

Notice is given that in addition to the requirements of the General Conditions of the Contract, Non-Resident Contractors shall comply with the provisions of Sections 52-1-66; 59A-17-10.1; 59A-18-1; and 59A-18-12 NMSA 1978, pertaining to the worker's compensation insurance policy and rate for employers not domiciled in New Mexico.

26. **STATE OF NEW MEXICO SUBCONTRACTORS FAIR PRACTICES ACT.** This Public Works Project is subject to the provisions of the Subcontractors Fair Practices of the State of New Mexico.

26.1 General: This law requires that all work being performed by a Subcontractor in the amount exceeding the listing threshold be performed under the provisions of the Subcontractors Fair Practices Act.

- 26.2 Listing Threshold Amount: The listing threshold shall be five thousand dollars (\$5,000).
- 26.3 List of Subcontractors Required: BIDDER shall define the categories of Subcontractors in his bid and shall list no more than one Subcontractor for each category. This listing shall only apply to those Subcontractors whose listing is required pursuant to the New Mexico Subcontractors Fair Practices Act and estimated work exceeds the threshold dollar amount given in Section 27.2 above. This list shall be completed on the form entitled "Bidder's Listing of Subcontractor for Compliance with the Subcontractors Fair Practices Act" immediately after the Bid Form. This sheet must be filled in if a Subcontractor whose work exceeds the threshold limit is to be used. The list shall include the name and business address of each Subcontractor under potential subcontract to the bidder, who will perform work or labor or render service, which exceeds the threshold amount. All Subcontractors whose listing is required pursuant to the New Mexico Subcontractors Fair Practices Act and whose estimated work exceeds the threshold shall be listed at the time the Bid is submitted to OWNER. With respect to any category of work for which no subcontractor is listed in the above-referenced form and the BIDDER does not state that 'no bid was received' or that 'only one bid was received', BIDDER should be prepared to document (1) that it is licensed and prepared to do the work itself, and/or (2) that it has determined, at the time of submission of its bid, that the category of work does not exceed the threshold dollar amount given in Section 27.2 above. Failure to complete this form will result in a non-responsive bid that will be rejected.
- 26.4 Delays Attributable to Hearings Required by the Subcontractors Fair Practices Act: In the event a hearing is held pursuant to the provisions of the Subcontractors Fair Practices Act and a delay in the Work of the Project is caused as a result, the CONTRACTOR shall not be entitled to an increase in the contract amount or contract time.
- 26.5 Applicability of this Section: Any questions regarding this act should be referred to Legal Counsel.
27. The selected Contractor shall comply with all applicable Worker's Safety Requirements of the U.S. Occupational Health and Safety Administration.
28. Notice of Extended Payment Provision – This construction contract specifically provides for a payment later than twenty-one days after submission of an undisputed request for payment.

29. **PURCHASING OFFICE**

This IFB is issued on behalf of the City of Aztec by the Purchasing Office, which is **THE SOLE POINT OF CONTACT DURING THE PROCUREMENT PROCESS**. Communications initiated by a bidder to this IFB with members of the Governing Body or City personnel, other than as coordinated by the Point of Contact noted below, shall be grounds for Offeror disqualification. Any inquiries or requests during this procurement shall be submitted to the following Point of Contact in writing:

City of Aztec
Department of Finance Department
Attention: Kathy Lamb, Finance Director
201 W. Chaco
Aztec, NM 87410
(505) 334-7653
klamb@aztecnm.gov

Return of Acknowledgement Form for Distribution List. Potential Bidders should return by email, facsimile, registered mail or in person the Acknowledgement Form (see on next page) to have their firm placed on the procurement distribution list. Failure to return this form will prevent the potential Bidder's firm name from appearing on the procurement distribution list. The procurement distribution list will be used for distribution of important information regarding this solicitation. **A valid email address must be provided.**



ACKNOWLEDGMENT OF RECEIPT FORM

In acknowledgment of receipt of BID 2015-0419 SANITARY SEWER INTERCEPTOR LINE, the undersigned agrees that he/she has received the bid document copy from the City's website.

The City will provide additional bid documents electronically upon receipt the completed acknowledgement form.

MANDATORY PRE-BID: Monday, March 28, 2016, 1:30PM at the Library Conference Room, 319 S. Ash Street, Aztec NM 87410

The acknowledgment of receipt should be signed and returned as directed below no later than Friday, April 22, 2016, 10:00AM. Only potential Bidders/Offerors who elect to return this form will receive copies of all future communications, relating to, and including amendments to the Bid if issued.

FIRM: _____

REPRESENTED BY: _____

TITLE: _____ PHONE NO.: _____

EMAIL: _____ FAX NO.: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

SIGNATURE: _____ DATE: _____

This name and address will be used for all correspondence related to document this Bid/RFP

Firm does/does not (circle one) intend to respond to BID 2015-0419 SANITARY SEWER INTERCEPTOR LINE.

If firm does not intend to reply, please give a brief reason for not responding. _____

Return to:
Kathy Lamb
Finance Director
City of Aztec
201 W Chaco
Aztec, New Mexico 87410
Telephone Number: 505-334-7653
Fax Number: (505) 334-7649
klamb@aztecnm.gov

Faxed or emailed copies of this form will be accepted.
Faxed or emailed **BID** responses **will not** be accepted.



NOTICE TO CONTRACTORS

SANITARY SEWER INTERCEPTOR IMPROVEMENTS

1. Standard Specifications

The Standard Specifications for the Project are the New Mexico Standard Specifications for Public Works Construction, **Current Edition**, as amended and published by the New Mexico Chapter of the American Public Works Association; the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, Current Edition, as amended and published by the New Mexico State Department of Transportation and the City of Aztec Standard Drawings. Copies of the Standard Specifications for Highway and Bridge Construction may be obtained online at <http://www.dot.state.nm.us>. The City shall make such determinations as necessary as to which Standard Specifications govern and control in the event of a conflict, discrepancy, or request for clarification from the Contractor.

2. Statement of Scope of Work

Installation of approximately 5,500 LF of 24" HDPE sanitary sewer interceptor, 2,300 LF of 18" HDPE sanitary sewer interceptor, new manholes, by-pass pumping street restoration are part of the project.

3. Project Schedule

- Legal Advertisement: 3/20/16, 3/27/16, 4/03/16
- Mandatory Pre-Bid will be held on: March 28, 2016; 1:30pm at the Library Conference Room located at 219 S. Ash Street, Aztec, NM
- Question Deadline: April 22, 2016
- Bid Submission Deadline: April 28, 2016 at 3:00pm

4. Materials Testing and Quality Control

All testing shall be conducted and paid for in accordance with the New Mexico Standard Specifications for Public Works Construction, **Current Edition**, as amended and published by the New Mexico Chapter of the American Public Works Association.

5. Traffic Control

The Contractor shall submit, prior to commencement of construction in the area affected, a detailed traffic control plan to the City's designated Project Manager for review and approval by OWNER. Traffic Control plan shall conform to the City ordinance which is available on the City website.

6. Construction Staking and Record/As-Built Construction Drawings

The Contractor shall furnish all construction staking and surveys required to construct the project in accordance with the bearings, distances, and coordinate points specified in the drawings. The Contractor shall be responsible for furnishing OWNER with as-built survey information/record documents for construction work performed. As-built survey information/record documents shall be considered incidental to the project and no separate payment shall be made thereof.

7. Determination of Notice to Proceed Date

Determination of the Notice to Proceed date is at the City of Aztec's sole discretion.

8. Preliminary Schedule Submittal

The following preliminary schedules shall be provided by the Contractor at the scheduled Pre-Construction meeting:

- a. Preliminary progress schedule
- b. Preliminary schedule of submittals

9. Water Meter

Water meters shall be secured by the Contractor from the City of Aztec Utility – Customer Services. City shall pay the water bill.

10. Construction Debris Containment and Removal

Contractors must contact Transit Waste, 505-634-2510 if a dumpster or roll off is necessary for proper containment, removal, and disposal of construction debris for any projects completed within Aztec City Limits.

11. Requirement of Vendor Registration with City of Aztec Finance Department

The awarded vendor must have a current registration with the City of Aztec for the Purchasing Office to issue a Purchase Order on any project. If the Bidder is not currently registered, a completed Vendor Registration Form and W9 must be filled out and submitted to the Purchasing Office. Contractors can find these forms and additional information regarding Vendor Registration at the following web address:

<http://www.aztecnm.gov/purchasing/office.htm>

Contractors may also contact the Purchasing Office to check their vendor registration status.




12. Project Sign

Project Sign requirement follow this section

13. Application for Payment

Application for Payment requirement follows this section.

EXAMPLE PROJECT SIGN FOR CWSRF FUNDED PROJECTS



Community Name

Project Description (i.e. Wastewater treatment plant)

Engineer Contact Name, Company & Phone #

Contractor Project Manager, Company & Phone #

Financed by: U.S. Environmental Protection Agency
Clean Water State Revolving Loan Fund

Administered by: New Mexico Environment Department- Construction Programs Bureau

BLACK LETTERING

WHITE BACKGROUND

LETTERING
(GREEN, PMS 343)

BLACK LETTERING

This institution is an equal opportunity provider.

Susana Martinez, Governor of New Mexico
Ryan Flynn, Secretary Environment Department

SIGN DIMENSIONS: 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x 3/4")
PLYWOOD PANEL (APA RATED A-B GRADE-EXTERIOR)

PARTIAL PAYMENT SCHEDULE				PROJECT No. _____	
				PARTIAL PAYMENT ESTIMATE No. _____	
				PAGE _____ OF _____ PAGES	
OWNER:		CONTRACTOR:		PERIOD OF ESTIMATE: FROM: _____ TO: _____	
CONTRACT CHANGE ORDER SUMMARY				PAY ESTIMATE	
C.O. No.	OWNER APPROVAL DATE	AMOUNT		1. Original Contract Value	\$
		Additions	Deductions	2. Change Orders	\$
1				3. Revised Contract Value (1+2)	\$
2				4. Work Completed*	\$
3				5. Stored Materials * (this period)	\$
4				6. Subtotal (4+5)	\$
5				7. Retainage @ _____%	\$
6				8. Less Previous Payments	\$
7				9. Subtotal (6-7-8)	\$
8				10. NMGR @ _____%	\$
TOTALS		\$	\$	11. Amount Due This Estimate (9+10)	\$
NET CHANGE		\$		* Detailed Breakdown Attached	
CONTRACT TIME					
Original (days)		Project on Schedule: Yes [] No []		Project Start Date: _____ Project Completion Date: _____	
Current					
Remaining					
ORIGINAL CONTRACT PERCENT COMPLETE				ACCEPTED BY OWNER: OWNER: _____ BY: _____ DATE: _____	
TIME	%	FUNDS	%		
CURRENT CONTRACT PERCENT COMPLETE					
TIME	%	FUNDS	%		
CONTRACTOR'S CERTIFICATION: The undersigned Contractor certifies that to the best of his/her knowledge, information and belief, the work covered by this payment estimate has been completed in accordance with the contract documents, that all amounts have been paid by the Contractor for work for which previous payment estimates were issued and payments received from the Owner, and that current payment shown herein is now due. CONTRACTOR: _____ BY: _____ DATE: _____				ENGINEER'S CERTIFICATION: The undersigned certifies that the work has been carefully inspected and to the best of his/her knowledge and belief, the quantities shown in this estimate are correct and the work has been performed in accordance with the contract documents. Amount Certified: \$ _____ ENGINEER: _____ BY: _____ DATE: _____	

CITY OF AZTEC

STANDARD SPECIFICATIONS

Incorporation of New Mexico Standard Specifications: The New Mexico Standard Specifications for Public Works Construction, Current Edition, and Technical Specifications, as updated, and in effect during this project are incorporated by reference, the same as if fully written herein and shall govern this Project except where revised, updated or supplemented by the City of Aztec. Contractor shall have a copy of the New Mexico Standard Specifications for Public Works Construction at the job site at all times.

The New Mexico Standard Specifications for Public Works Construction, Current Edition (NM APWA), will be available on the City of Aztec website.

All items required for this project, will be considered incidental to the Contract Work and no additional payment will be made unless unanticipated conditions are uncovered requiring a change order.

CITY OF AZTEC

SUPPLEMENTAL TECHNICAL SPECIFICATIONS

Technical Specifications

Section 01020	Allowances
Section 02960	Temporary Bypass Pumping Systems
Section 02999	Storm Water Pollution Prevention Plan
Section 15000	HDPE Pipe
Section 15030	Construction Survey & Staking
Section 16000	Construction Mobilization
Section 17010	Traffic Control Plan & Water Control Criteria
Section 17020	Permits

SECTION 01020 ALLOWANCES

PART 1 - GENERAL

1.0 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this Section.

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
 - B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - C. At the earliest practical date after award of the Contract, advise the Engineer of the date when the final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
 - D. At the Engineer's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
 - E. Purchase products and systems selected by the Engineer from the designated supplier.
- #### **1.3 SUBMITTALS**
- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
 - B. Submit invoices or delivery slips to show the actual quantities of materials delivered to the site for use in fulfillment of each allowance.

PART 2 - PRODUCTS

2.1 EXAMINATION

- A. Examine products covered by an allowance promptly upon delivery for damage or defects.

2.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

2.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 3: Include the sum of \$250,000.00 for Dewater Trench.

- 1. Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.

END OF SECTION

SECTION 02960
TEMPORARY BYPASS PUMPING SYSTEMS

GENERAL

1.1 DESCRIPTION

- A. Section includes requirements for implementing a temporary pumping system for the purpose of diverting existing sewage flow around work area for duration of the project.

1.2 QUALITY ASSURANCE

- A. Follow national standards and as specified herein.
- B. Perform leakage and pressure tests on discharge piping using clean water, before operation. Notify Engineer 24 hours prior to testing.
- C. Maintain and inspect temporary pumping system every two hours. Responsible operator: on site when pumps are operating.
- D. Keep and maintain spare parts for pumps and piping on site, as required.
- E. Maintain adequate hoisting equipment and accessories on site for each pump.

1.3 SUBMITTALS

- A. Submit following Section 01330.
 - 1. Detailed plan and description of proposed pumping system. Indicate number, size, material, location and method of installation of suction and discharge piping, size of pipeline or conveyance system to be bypassed, staging area for pumps, site access point, and expected flow.
 - a. Size and location of manhole or access points for suction and discharge hose or piping.
 - b. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill, if buried.
 - c. Temporary pipe supports and anchoring required.
 - d. Thrust and restraint block sizes and locations.
 - e. Sewer plugging method and type of plugs.
 - f. Bypass pump sizes, capacity, number of each size to be on site and power requirements.
 - g. Backup pump, power and piping equipment.
 - h. Calculations of static lift, friction losses, and flow velocity. Pump curves showing pump operating range.
 - i. Design plans and computation for access to bypass pumping locations indicated on drawings.
 - j. Calculations for selection of bypass pumping pipe size.
 - k. Method of noise control for each pump and/or generator.

- l. Method of protecting discharge manholes or structures from erosion and damage.
- m. Schedule for installation and maintenance of bypass pumping lines.
- n. Procedures to monitor upstream mains for backup impacts.
- o. Procedures for setup and breakdown of pumping operations.
- p. Emergency plan detailing procedures to be followed in event of pump failures, sewer overflows, service backups, and sewage spillage.
 - 1) Maintain copy of emergency plan on site for duration of project.

- B. Submit following Section 01450.
 - 1. Certify bypass system will meet requirements of codes, and regulatory agencies having jurisdiction.

1.4 CONTRACTORS RESPONSIBILITY FOR OVERFLOWS AND SPILLS

- A. Schedule and perform work in manner that does not cause or contribute to incidence of overflows, releases or spills of sewage from sanitary sewer system or bypass operation.
- B. The Contractor is responsible for cleaning up all overflows and spills and reporting same to the NM Environmental Department. No Payment will be made to the contractor for cleaning up overflows and/or spills in compliance with all applicable regulations established by the US Environmental Protection Agency and the NM Environmental Department.

1.5 DELIVERY AND STORAGE

- A. Transport, deliver, handle, and store pipe, fittings, pumps, ancillary equipment and materials to prevent damage and following manufacturer's recommendations.
- B. Inspect all material and equipment for proper operation before initiating work.
- C. Material found to be defective or damaged due to manufacturer or shipment.
- D. When Engineer deems repairable: Repair as recommended by manufacturer.
- E. When Engineer deems not repairable: Replace as directed by Engineer before initiating work.
- F. Repair or replacement of defective or damaged material and equipment will be at no cost to Commission.
- G. Leakage from pipes during installation or removal of By-Pass pumping equipment is considered a spill and must be handled as such by the Contractor. Care MUST be exercised to remove equipment without inadvertently exposing surrounding environment to septic.

PRODUCTS

2.1 MATERIALS

- A. Discharge and Suction Pipes: Approved by Engineer.

Discharge piping: Determined according to flow calculations and system operating calculations.

Suction piping: Determined according to pump size, flow calculations, and manhole depth following manufacturer's specifications and recommendations.

- B. Polyethylene Plastic Pipe:
1. High density solid wall and following ASTM F714 Polyethylene (PE) Plastic Pipe (SDR-DR) based on Outside Diameter, ASTM D1248 and ASTM D3550
 2. Homogenous throughout, free of visible cracks, discoloration, pitting, varying wall thickness, holes, foreign material, blisters, or other deleterious faults.
- C. High-Density Polyethylene (HDPE).
1. Homogenous throughout, free of visible cracks, discoloration, pitting, varying wall thickness, holes, foreign material, blisters, or other deleterious faults.
 - a. Defective areas of pipe: Cut out and joint fused as stated herein.
 2. Assembled and joined at site using couplings, flanges or butt-fusion method to provide leak proof joint. Follow manufacturer's instructions and ASTM D 2657.
 - a. Threaded or solvent joints and connections are not permitted.
 3. Fusing: By personnel certified as fusion technicians by manufacturer of HDPE pipe and/or fusing equipment.
 4. Butt-fused joint: True alignment and uniform roll-back beads resulting from use of proper temperature and pressure.
 - a. Allow adequate cooling time before removal of pressure.
 - b. Watertight and have tensile strength equal to that of pipe.
 - c. Acceptance by Engineer before insertion.
 5. Use in streams, storm water culverts and environmentally sensitive areas.
- D. Flexible Hoses and Associated Couplings and Connectors.
1. Abrasion resistant.
 2. Suitable for intended service.
 3. Rated for external and internal loads anticipated, including test pressure.
 - a. External loading design: Incorporate anticipated traffic loadings, including traffic impact loading.
 4. When subject to traffic loading, compose system, such as traffic ramps or covers.
 - a. Install system and maintain H-20 loading requirements while in use or as directed by the Engineer.
- E. Valves and Fittings: Determined according to flow calculations, pump sizes previously determined, and system operating pressures.
- F. Plugs: Selected and installed according to size of line to be plugged, pipe and manhole configurations, and based on specific site.
1. Additional plugs: Available in the event a plug fails. Plugs will be inspected before use for defects which may lead to failure.
- G. Aluminum "irrigation type" piping or glued PVC piping will not be permitted.
- H. Discharge hose will only be allowed in short sections when approved by Engineer.

2.2 EQUIPMENT

A. Pumps.

Fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in priming system.

Electric or diesel powered.

Constructed to allow dry running for long periods of time to accommodate cyclical nature of effluent flows.

B. Provide.

Necessary stop/start controls for each pump.

One standby pump of each size maintained on site.

a. On-line, isolated from primary system by a valve.

Quiet flow pumps at request of Engineer.

2.3 DESIGN REQUIREMENTS

A. Bypass pumping systems:

1. Sufficient capacity to pump peak flow of 1 mgd.

a. Peak flows greater than 1 mgd as approved by Engineer.

b. Commission will provide flow data for bypass system.

c. Operate 24 hours per day.

B. Provide pipeline plugs and pumps of adequate size to handle peak flow, and temporary discharge piping to ensure total flow of main can be safely diverted around section to be repaired.

3.0 EXECUTION

3.1 PREPARATION

A. Determining location of bypass pipelines.

1. Minimal disturbance to existing utilities.

a. Field locate existing utilities in proposed bypass area.

2. Obtain approvals for placement within public or private property.

3. Obtain Engineer's approval of location.

4. Costs associated with relocation of utilities and obtaining approvals at no cost to the Commission.

3.2 INSTALLATION AND REMOVAL

A. Provisions and requirements must be reviewed by Engineer before starting construction.

- B. Remove manhole sections or make connections to existing sewer and construct temporary bypass pumping structures at access location indicated on Drawings and as required to provide adequate suction conduit.
- C. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, remove in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- D. When working inside manhole or force main, exercise caution. Follow OSHA, Local, State and Federal requirements. Take required measures to protect workforce against sewer gases and/or combustible or oxygen-deficient atmosphere.
- E. Installation of Bypass Pipelines:
 - 1. Pipeline may be placed along shoulder of roads.
 - a. Do not place in streets or sidewalks.
 - 2. When bypass pipeline crosses local streets and private driveways, place in roadway ramps.
 - a. When roadway ramps cannot be used, place bypass in trenches and cover with temporary pavement as approved by Engineer.
 - b. Follow Section 02510.
- F. During bypass pumping operation, protect sewer lines from damage inflicted by equipment.
- G. Upon completion of bypass pumping operations, and after the receipt of written permission from Engineer, remove piping, restore property to pre-construction condition and restore pavement.

4.0 MEASUREMENT AND PAYMENT

4.1 By-Pass Pumping shall be paid for **by the hour** for the contract unit price “**By-Pass Pumping – Location ***”. This payment shall be full compensation for furnishing all equipment, labor, materials and incidentals required to perform by-pass pumping of septic at the prescribed location in accordance with the plans and specifications. It shall also include compensation for spill and/or overflow cleanup in accordance with US EPA and NMED regulations and for all materials, labor, equipment and incidentals required to complete the work.

Pat Items:

By-Pass Pumping, Location #1

By-Pass Pumping, Location #2

By-Pass Pumping, Location #3

By-Pass Pumping, Location #4

By-Pass Pumping, Location #5

By-Pass Pumping, Location #6

By-Pass Pumping, Location #7

By-Pass Pumping, Location #8

SECTION 02999
STORM WATER POLLUTION PREVENTION PLAN PREPARATION
AND MAINTENANCE

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Storm Water Pollution Prevention Plan Preparation for Construction Activities

1. SWPPP is a document that contains an information sheet and the following forms; Inspection, NOI, Storm Water Program, Storm Water Management, NPDES General Construction Storm Water Permit Checklist, and Contractor Certification for NPDES General Permit for Storm Water Discharges from Construction Sites. The information sheet encompasses site description and NOI inputs and general notes; this sheet is included in the construction plan. In accordance with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit, issued by the Environmental Protection Agency (EPA), construction projects with one acre or more of earth disturbance will require an SWPPP and submittal of Notice of Intent (NOI).
2. Temporary Erosion and Sediment Control Plan (TESCP). The TESCP is a set of sheets that depict location, type, and length of temporary erosion control measures. The TESCP shall define all erosion and sediment control measures to be constructed by the Contractor and in place until **Physical Completion** of the project. The Contractor will prepare and maintain a TESCP based on his or her construction phasing and schedule. The Contractor's TESCP shall define all erosion and sediment control measures to be constructed, their locations, and their dates of placement and removal, by phase or major construction activity. This TESCP shall be kept current to reflect field modifications of control measures. The TESCP shall be considered part of the project SWPPP.

B. Maintenance of Temporary Erosion and Sediment Control Plan

1.2 SUBMITTALS

A. SWPPP

B. Maintenance Reports

PART 2 – PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 SWPPP

- A. The Contractor shall submit to the Project Manager, prior to initial soil disturbance, an SWPPP based on the planned phasing and schedules of construction. Amendments to the SWPPP shall be made as work progresses or as the Contractor proposes phasing/scheduling changes. The SWPPP shall specifically define all required control measures for each construction phase, shall comply with the provisions of the NPDES General Permit, and shall include but not be limited to the following items or activities:
- TЕСP;
 - The dates and locations of planned and actual clearing and grubbing activities, earthwork activities, and construction of permanent erosion control features;
 - A description of permanent best management practices, when, where, and why;
 - A description of control practices used to divert flows from exposed soils, when, where, and why;
 - A description of construction waste materials stored on site and controls used to minimize pollution from these materials; and
 - Preparation of a spill prevention and response plan.
- B. The SWPPP shall also include proposed methods to minimize or eliminate pollution of streams, lakes, reservoirs, canals, and other impoundments, from the discharge of storm water associated with construction activities. Information required to develop the SWPPP is provided in the construction plans or may be obtained from the Project Manager within five working days of the request. No earth-disturbing activities shall commence until the Project Manager has accepted the SWPPP in writing.
- C. The SWPPP shall be developed using a combination of structural, non-structural, and vegetative Best Management Practices (BMPs) to adequately control erosion and sedimentation and manage storm water. The SWPPP shall be modified as needed to address changes in the field that develop during construction.
- D. The Contractor shall be responsible for maintaining the SWPPP in compliance with the NPDES General Permit until the **Physical Completion** of the project.

3.2 RETENTION OF RECORDS

- A. The SWPPP is a dynamic document. The Contractor shall retain and maintain all changes made to the SWPPP as required by the NPDES General Permit. This will be the official record. The Contractor shall retain and place in the SWPPP a copy of the permit language and all inspection and maintenance reports. Inspection and maintenance reports shall be prepared by the Contractor from the commencement of earthwork disturbance activities to the **Physical Completion** of the project. The Contractor shall submit the official SWPPP to the Project Manager at the completion of the project. These records shall be available to the public at all times.

3.3 NOTICE OF INTENT (NOI).

- A. The NOI shall meet the National Pollutant Discharge Elimination System (NPDES) General Permit requirements for the discharge of storm water associated with construction activities.
- B. The Notices of Intent shall be submitted to the Environmental Protection Agency (EPA), designating the status of owner/operator. The NOI shall be accepted by the EPA and a permit tracking number issued prior to the start of any earth-disturbing construction activities on the project. A copy of the Contractor's NOI shall be submitted to the Project Manager.

3.4 NOTICE OF TERMINATION (NOT).

- A. The Contractor shall prepare and submit to the EPA an NOT within 30 days after the **Physical Completion** of the project, to indicate that the Contractor is no longer the operator of the project. A copy of the submittal shall be provided to the Project Manager.

3.5 OFF-SITE POLLUTION PREVENTION PLAN

- A. The Contractor shall prepare and submit an SWPPP and NOI, if required, to the appropriate agencies for all related work to take place outside the project right-of-way. The Contractor shall be responsible for filing the NOT for the off-site locations. A copy of each submittal shall be provided to the Project Manager. The Contractor shall be responsible for complying with all NPDES requirements for off-site locations.

END OF SECTION

SECTION 15000 HDPE PIPE

PART 1 – GENERAL

- 1.1 DESCRIPTION: This specification governs the material, pipe, fittings, joining methods and general construction practice for High Density Polyethylene (HDPE) piping systems.
- 1.2 QUALITY ASSURANCE: References, American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), Federal Specifications (FS), International Standards Organization (ISO), and manufacturer's printed recommendations.

PART 2 – MATERIALS

- 2.1 PIPE: Pipe shall have a nominal DIPS (Ductile Iron Pipe Size) OD. Pipe shall be manufactured from a PE 3408 resin listed with the Plastic Pipe Institute (PPI) as TR-4. The supplier shall be ISCO Industries, LLC. The resin material shall meet the specifications of ASTM D 3350-02 with a minimum cell classification of PE345464C. Pipe shall have a manufacturing standard of ASTM F714. The pipe shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. The pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, voids, or other injurious defects.
 - A. 2 INCHES & SMALLER – Pipe shall be DR-26 (64 psi WPR) unless otherwise specified on the plans.
 - B. 3 INCHES & LARGER – Pipe shall be DR-26 (64 psi WPR) unless otherwise specified on the plans.
- 2.2 FITTINGS
 - A. BUTT FUSION FITTINGS: Molded butt fusion fittings shall be in accordance with ASTM D-3261 and shall be manufactured by injection molding. Fabricated fittings made from HDPE pipe conforming to this specification are also acceptable. All fittings shall be pressure rated to provide a working pressure rating no less than 100 psi (DR-17). Fabricated fittings shall be manufactured using a McElroy Datalogger to record fusion pressure and temperature. A graphic representation of the temperature and pressure data for all fusion joints made producing fittings shall be maintained as part of the quality control. The pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, voids, or other injurious defects. The supplier shall be ISCO Industries, LLC.
 - B. ELECTROFUSION FITTINGS: Electrofusion Fittings shall be PE3408 HDPE, Cell Classification of 345464C as determined by ASTM D-3350-02 and be the same base resin as the pipe. Butt Fusion Fittings shall have a manufacturing standard of ATM F-1055. Fittings shall be DR17 unless otherwise specified on the plans. The supplier shall be ISCO Industries, LLC.
 - C. FLANGED AND MECHANICAL JOINT ADAPTERS: Flanged and Mechanical Joint Adapters shall be PE 3408 HDPE, Cell Classification of 345464C as determined by ASTM D-3350-02 and be the same base resin as the pipe. All flange adapters and back up rings shall

be pressure rated to provide a working pressure rating no less than that of the 100 psi (DE-17). The supplier shall be ISCO Industries, LLC.

- D. MECHANICAL RESTRAINT: Mechanical restraint for HDPE pipe may be provided by mechanical means. Bell MJ Adapters and standard MJ adapters can be used. The supplier shall be ISCO Industries, LLC.

PART 3 – EXECUTION

3.1 GENERAL

- A. PIPE & FITTINGS: Size as indicated on the plans. Install as shown in accordance with manufacturer's recommendations.

3.2 JOINING:

- A. BUTT FUSION: Sections of polyethylene pipe should be joined into continuous lengths on the jobsite above ground. The joining method shall be the butt fusion method and shall be performed in strict accordance with the pipe manufacturer's recommendations. The butt fusion equipment used in the joining procedures should be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, temperature requirements of 400-450 degrees Fahrenheit, alignment, and an interfacial fusion pressure of 75 PSI. The butt fusion joining will produce a joint weld strength equal to or greater than the tensile strength of the pipe itself. A data logger shall be used to record all fusion conditions.
1. All on site fusion welds to be performed using McElroy Datalogger and Weld Map as provided by ISCO Industries, LLC.
 2. On Sight Fusion to be contracted to ISCO Industries, LLC. Or On Site Fusion Technician to be ISCO Fusion Program Qualified; and to have Fusion Welded over 5000 ft of 20" or larger Solid Wall HDPE pipe. Qualification letter required.
 - a. ISCO Fusion Program Training for fusion qualifications shall be made available for hire to the public.
- B. SIDEWALL FUSION: Sidewall fusions for connections to outlet piping shall be performed in accordance with HDPE pipe and fitting manufacturer's specifications. The heating irons used for sidewall fusion shall have an inside diameter equal to the outside diameter of the HDPE pipe being fused. The size of the heating iron shall be ¼ inch larger than the size of the outlet branch being fused. Sidewall Fusion Welds shall only be performed by qualified ISCO Industries, LLC personnel.
- C. MECHANICAL: Bolted joining may be used where the butt fusion method cannot be used. Flange joining will be accomplished by using a HDPE flange adapter with a ductile iron back-up ring. Mechanical joint joining will be accomplished using either a molded mechanical joint adapter or the combination of a Sur-Grip Restrainer and Pipe Stiffener as manufactured by JCM Industries, Inc. Either mechanical joint joining method will have a ductile iron mechanical joint gland.
- D. OTHER: Socket fusion, hot gas fusion, threading, solvents, and epoxies may not be used to join HDPE pipe.

- 3.3 **QUALITY AND WORKMANSHIP:** The pipe and/or fitting manufacturer's production facility shall be open for inspection by the owner or his designated agents with a reasonable advance notice. During inspection, the manufacturer shall demonstrate that it has facilities capable of manufacturing and testing the pipe and/or fittings to the standards required by this specification.
- 3.4 **PIPE PACKAGING, HANDLING & STORAGE:** The manufacturer shall package the pipe in a manner designed to deliver the pipe to the project neatly, intact and without physical damage. The transportation carriers shall use appropriate methods and intermittent checks to insure the pipe is properly supported, stacked and restrained during transportation such that the pipe is not nicked, gouged, or physically damaged.

Pipe shall be stored on clean, level ground to prevent undue scratching or gouging. If the pipe must be stacked for storage, such stacking shall be done in accordance with the pipe manufacturer's recommendations. The pipe shall be handled in such a manner that it is not pulled over sharp objects or cut by chokers or lifting equipment.

Sections of pipe having been discovered with cuts or gouges in excess of 10% of the pipe wall thickness shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the heat fusion joining method.

Fused segments of the pipe shall be handled so as to avoid damage to the pipe. Chains or cable type chokers must be avoided when lifting fused sections of pipe. Nylon slings are preferred. Spreader bars are recommended when lifting long fused sections.

PART 4 – CONSTRUCTION PRACTICE

- 4.1 **TRENCH CONSTRUCTION:** Trenching shall be done in accordance with ASTM D 2321, Section 6 and/or ASTM D2774.
- 4.2 **EMBEDMENT MATERIAL:** Embedment materials shall be Class I, Class II, and Class II materials as defined by ASTM D2321, Section 5. The use of Class IV and Class V materials for embedment is not recommended and should be done only with the approval of the engineer. Class I crushed stone and Class II well-graded gravels are preferred. The embedment material shall have an installed density of at least 95% Standard Proctor Density through compaction or consolidation without damage to the HDPE pipe.
- 4.3 **BEDDING:** The pipe bedding shall be constructed in accordance with ASTM D2321, Section 5, Table 2.
- 4.4 **HAUNCHING AND INITIAL BACKFILL:** Haunching and initial backfill shall be as specified in ASTM D 2274 and/or ASTM D 2321, Section 5, Table 2 using Class I, Class II, or Class III materials. Materials and compaction shall be specified by the engineer.

PART 5 – TESTING

- 5.1 All new pipelines (HDPE and Ductile Iron) is to be pressure tested to ensure proper sealing between sections and joints.

PART 6 – MEASUREMENT AND PAYMENT

- 6.1 HDPE, PIPE, FITTINGS AND ACCESSORIES: Payment will be included under the bid item to which the work relates.

END OF SECTION

SECTION 15030
CONSTRUCTION SURVEY AND STAKING

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

- A. The work under this section includes furnishing the necessary labor and material to supplement existing horizontal and vertical control and to layout and locate the facilities in accordance with the drawings. Also, any boundary of property surveys as required due to destruction of existing monuments shall meet the “Minimum Standards for Land Surveying in New Mexico” as adopted by the New Mexico State Board of Registration for Professional Engineers and Surveyors and as required hereinafter.

PART 2 – PRODUCTS/MATERIALS

No products or materials are described in this section.

PART 3 – EXECUTION

3.1 LAYOUT

- A. The Contractor will be responsible for all surveys, and layout of the construction described herein. Layout includes location of the centerlines of construction, limits of work, reference points, all structural elements, and project features.
- B. Benchmarks will be provided for construction layout and Contractor should survey on elevation datum provided. The layout survey shall establish positions in accordance with the drawings. Any series of observations and measurements made for the purpose of restoring any real property boundary, including easements, rights-of-way, and work limits shall be performed by a Professional Surveyor registered in New Mexico in accordance with the New Mexico Engineering and Surveying Practice Act.
- C. The drawings include horizontal and vertical “reference monuments” which may be used in the layout of the project. The successful bidder (the Contractor) will be provided with electronic data in AutoCAD 2000 format that provides control data and line locations as shown. The Contractor is cautioned that the use of single horizontal or vertical “reference monument” may not be accurate due to disturbance of said monuments or misidentification.
- D. All vertical surveys and layouts by the Contractor, or his agents, shall be considered invalid unless at least two vertical “reference monuments” are utilized in a closed level circuit. No horizontal or vertical “reference monuments” shall be utilized until the Contractor, or his agents, has satisfied himself/themselves that the stated data for the monuments is consistent with the horizontal and vertical datum for the project. The Contractor, or his agents, may establish additional “reference monuments” for his/their use, provided that accuracy of these monuments is in accordance with minimum accuracy standards for land surveys in New Mexico.

3.2 QUALIFICATION OF SURVEY AND LAYOUT PERSONNEL AND PROCEDURES

- A. Prior to commencement of any boundary or right-of-way survey, the Contractor shall notify the Owner and Engineer of names and qualifications of the personnel who will perform all layout and survey work. The notification shall include the following:
 - 1. Name and New Mexico registration number of the Professional Surveyor who will be in responsible charge of the work.
 - 2. Name and experience of field personnel.
 - 3. Types of equipment and accuracy of equipment to be used in the horizontal and vertical layout and surveys.
 - 4. Schedule of time and manpower requirements to be utilized for layout and surveys.
 - 5. Certification that work will be accomplished in accordance with the "Minimum Standards for Surveying in New Mexico".

PART 4 – MEASUREMENT AND PAYMENT

4.1 MEASUREMENT AND PAYMENT OF CONSTRUCTION STAKING (SURVEY LAYOUT)

- A. Payment shall be made on based on a lump sum basis for all work. All labor, materials, fees, and incidentals as required to produce a complete and finished product are to be merged into the lump sum provided in the Bid Form.

END OF SECTION

SECTION 16000
CONSTRUCTION MOBILIZATION

PART 1 – DESCRIPTION

Mobilization shall consist of, but not be limited to, all preparatory work, preliminary operations, and incurred costs necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; and for the establishment of all offices, buildings, and other facilities needed for the project – prior to beginning work on project.

PART 2 – MOBILIZATION ADMINISTRATION REQUIREMENTS

2.1 DEFINITIONS

- A. Total original contract amount shall mean the total amount bid as compensation for the contract.
- B. Total original contract amount less mobilization shall mean the total amount bid as compensation for the contract, less the amount bid for mobilization.

2.2 GENERAL

- A. It is the intent of this specification to provide for the Contractor to receive 100% of the amount bid for mobilization by the time the Contractor has performed 10% of the total original contract amount bid, less the amount bid for mobilization.

If the Contractor's bid for mobilization is over 10% of the total original contract amount bid, less mobilization, payment for the amount over the 10% of the total original contract amount bid, less mobilization, will be made upon completion of all work under the contract.

2.3 PAYMENT PROCEDURES

- A. When Contractors are eligible for payment of less than 5% of the total original contract amount bid, less mobilization, they will be paid 25% of the amount bid for mobilization.
- B. When Contractors are eligible for payment of from 5% to less than 10% of the total original contract amount bid, less mobilization, they will be paid 50% of the amount bid for mobilization.
- C. When Contractors are eligible for payment of 10% or more of the total original contract amount, less mobilization, they will be paid 100% of the amount bid for mobilization, minus any mobilization amount already paid, except for the noted 10% limitation.

2.4 PAYMENT CALCULATIONS

P_m = Mobilization payment

M = Total amount bid for mobilization

f = Mobilization payment percentage factor –
0.25, or 0.50, or 1.0, as applicable

$P_m = M \times f$

Example 1

MOBILIZATION LESS THAN 10%

Total Original Contract Amount Bid.....\$110,000

Amount Bid for Mobilization 8,000

Total Original Contract Amount Less Mobilization.....102,000

Percent of Work Completed f x M = P_m			
<5% of \$102,000	0.25 x 8,000	=	\$2,000
≥5% to <10% of \$102,000	0.50 x 8,000	=	\$4,000
≥10% of \$102,000	1.00 x 8,000	=	\$8,000*

*Minus previously paid amounts

Example 2

MOBILIZATION MORE THAN 10%

Total Original Contract Amount Bid.....\$100,000

Amount Bid for Mobilization 10,000

Total Original Contract Amount Less Mobilization.....90,000

10% OF total Original Contract Amount Less Mobilization 9,000

Percent of Work Completed f x M = P_m			
<5% of \$90,000	0.25 x 10,000	=	\$2,500
≥5% to <10% of \$90,000	0.50 x 10,000	=	\$5,000
≥10% of \$90,000	1.00 x 9,000	=	\$9,000 *

*Minus previously paid amounts. Remaining \$1,000 paid upon completion of the work.

PART 5 – METHOD OF MEASUREMENT

Mobilization will be measured by the lump sum unit.

PART 6 – BASIS OF PAYMENT

Mobilization will be paid for at the contract lump sum price. No additional payments will be made for demobilization and remobilization due to shutdowns or suspensions of the work, or for other mobilization activities required to complete the contract satisfactorily.

END OF SECTION

SECTION 17010
TRAFFIC CONTROL PLAN & BARRICADING

All pertinent provisions of the New Mexico Standard Specifications for Public Works Construction shall apply in addition to the following:

PART 1 – DESCRIPTION

- 1.1 This work shall consist of implementing an approved traffic control plan in conformance with the contract documents and the Manual Uniform Traffic Control Devices. The Contractor shall submit his proposed traffic control plan to the Project Manager, for review and approval by the Local Government Agency Engineer or designee, prior to implementation.

PART 2 – MATERIALS

- 2.1 All materials necessary to complete the work shall be per the approved plan and in accordance with the MUTCD.

PART 3 – CONSTRUCTION REQUIREMENTS

- 3.1 All construction shall be effected by the Contractor in accordance with the applicable specifications and the approved traffic control plan.
- 3.2 All materials and devices shall be maintained and replaced, if necessary, for the duration of the project.
- 3.3 The contractor shall provide a detailed construction traffic control plan to be approved by the City of Aztec prior to the start of construction. The plan shall include detailed traffic control signage and proposed road closure schedules as well as any criteria identified herewith.
- 3.4 The contractor shall notify the City of Aztec and residents along project limits, at least 48 hours in advance of the closure of any City Street.
- 3.5 The contractor shall maintain two lanes of traffic at all times.
- 3.6 During the hours of construction the contractor shall provide for pedestrian and wheelchair access to all residences with a maximum detour of 150 feet.

PART 4 – METHOD OF MEASUREMENT

Traffic Control Plan and Barricading will be measured by the lump sum unit.

PART 5 – BASIS OF PAYMENT

Traffic Control and Barricading will be paid for at the contract lump sum price. No additional payments will be made due to shutdowns or suspensions of the work. Payment shall be full compensation for furnishing all materials, tools, labor, equipment, hauling, and any other appurtenances necessary to satisfactorily complete and maintain adequate and safe traffic control as approved by the City Engineer. This shall include traffic control flagging, traffic control devices, changeable message boards, temporary impact attenuators, providing glare shield, delineators, interim and temporary striping, and concrete wall barrier including connecting hardware (pins), unless otherwise specified. Traffic Control Management will be considered incidental to the completion of the work and no separate payment will be made, unless otherwise specified in the contract.

END OF SECTION

SECTION 17020 PERMITS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

- A. The work under this section includes the miscellaneous construction as required to satisfy the requirements of various permits from local and state agencies to build within public rights-of way.

PART 2 – PRODUCTS/MATERIALS

No products or materials are described in this section

PART 3 – EXECUTION

3.1 CITY ROAD CUT PERMITS

- A. The City of Aztec, New Mexico will give permission to construct and maintain the waterline within right-of-way in the locations provided for in these plans, provided the formal permit or permits are directly obtained from the City by the Contractor. The permit requirements include (See STS 17010):
 - 1. Adequate and safe traffic control during construction, with access to homes and businesses.
 - 2. Reconstructed roadway surfaces to be left in as good or better condition as before construction.
- B. The Contractor shall comply with any requirements of Road Cut Permits in regard to this construction.
- C. The City shall waive permit fees for this work.

3.2 NEW MEXICO DEPARTMENT OF TRANSPORTATION PERMIT

- A. The Contractor will apply for a New Mexico State Highway Utility Permit to construct within the right-of-way of New Mexico State Route 516 (outside the pavement) upon award of this project. Specific requirements for the permit will be provided with it for the Contractor when received. The permit will include, at a minimum (See STS 17010):
 - 1. Adequate and safe traffic control during construction per the traffic control plan provided.
 - 2. Regrading and reseeding where required to repair ground left disturbed by construction.

- B. The Contractor shall comply with any requirement of the State Highway Permit in regard to this construction.

3.3 SECTION 404 OF THE CLEAN WATER ACT

- A. The proposed project meets the terms and conditions set forth in NWP 12 for Utility Line activities. Likewise, the proposed project will be in compliance with applicable regional conditions, as outlined in the 2012 Regional Conditions in New Mexico.
- B. 401 Water Quality Certification (General Condition 21) - General Condition #25 of the NWPs states that individual 401 Water Quality Certification must be obtained or waived. In the State of New Mexico, conditions specified by the New Mexico Environment Department (NMED) in letter dated April 13, 2012 are necessary to assure compliance with the applicable provisions of the CWA §301, 302, 303, 306 and 307 and with applicable requirements of State law. Compliance with the terms and conditions of NWP 12 and referenced 401 Water Quality Certification letter will provide reasonable assurance that the permitted activities will be conducted in a manner which will not violate applicable water quality standards and the water quality management plan and will be in compliance with the antidegradation policy.
- C. Best Management Practices: Standard construction practices will be implemented on-site (as applicable) to further minimize impacts to jurisdictional WOUS. Material resulting from construction will be placed in such a manner that it will not be dispersed by currents or other forces. Any exposed slopes will be stabilized immediately upon completion of the erosion mitigation.
- Appropriate measures will be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites.
 - Material resulting from trench excavation will be placed in such a manner that it will not be dispersed by currents or other forces. Any exposed slopes and stream banks will be stabilized immediately upon completion of the utility line crossing of each waterbody. The trench will not be constructed or backfilled in such a manner as to drain WOUS (e.g. backfilling with extensive gravel layers, creating a French drain effect).
 - Following completion of construction, areas of temporary disturbance will be restored to pre- construction elevations and revegetated, as appropriate.

PART 4 – MEASUREMENT AND PAYMENT

4.1 PAYMENT FOR PERMITS

- A. There shall be no separate payment for work required to comply with provisions of this section, and any such costs shall be merged into the unit prices for other items of this contract.

END OF SECTION

Environmental Protection Agency Clean Water State Revolving Loan Fund

This project is wholly or partially funded with United States Environmental Protection Agency funds, and therefore must comply with all federal cross cutter requirements. Neither the United States nor its department's agencies or employees is or will be party to this invitation for bids or any resulting contract. This procurement will be subject to regulations contained in 40CFR part 31 including the Davis Bacon Act requirements.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended.

To ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to compete for procurements funded by EPA financial assistance, all Bidders shall make the six good faith efforts as outlined by EPA at http://www.epa.gov/osbp/dbe_efforts.htm. The Bidder must make a good faith effort to solicit and hire Disadvantaged Business to meet the goals outlined in EPA XP-215. A good faith effort requires that the Contractor: 1) Complete the affirmative steps outlined in XP-215, 2) Submit XP-215 with the bid proposal, 3) Submit with the bid proposal proof that affirmative steps have been taken and this should include copies of advertisements and letters of solicitation. A Proposal that omits XP-215 or does not support that a good faith effort was made will be considered non-responsive and the Bid Proposal rejected.

What are the Good Faith Efforts?

The Good Faith Efforts are required methods implored by all EPA financial assistance agreement recipients to ensure that all Disadvantaged Business Enterprises (DBEs) have the opportunity to compete for procurements funded by EPA financial assistance dollars. The Six Good Faith Efforts Are:

- 1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, state and local government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.*
- 2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.*
- 3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, state and local government recipients, this will include dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.*
- 4. Contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.*
- 5. Use the services and assistance of the Small Business Administration (SBE) and the Minority Business Development Agency of the Department of Commerce.*
- 6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.*

Supplemental Special Provision (SSP)

The purposed of this supplemental special provision documents the measurement and payment for each bid item.

All items include all labor, materials, tools, equipment, and incidentals and for doing all the work.

All items unless specified otherwise are complete-in-place to include quality control testing.

Items of work required to complete project without individual bid items are incidental to the project.

BID ITEM	ITEM DESCRIPTION	MEASUREMENT AND PAYMENT
1	SITE CLEARING AND GRUBBING, CIP	Item includes clearing, grubbing, removal and disposal of debris.
2	TREES, 12"-30" CIRC. R&D, CIP	Item includes removal and disposal of trees between 12 and 30 inches circumference measured 12 inches above grade. Trees outside of this measurement shall be included in Bid Item 1 - Site Clearing.
3	ROADWAY EXCAVATE & DISPOSE UNSUITABLE MATERIAL, CIP	Item includes excavating the construction area including public and private road approaches, connections, and driveways; and excavating unsuitable material. Excavation beyond the authorized cross section will not be included in measurement or payment. Rock excavation is not included.
4	SUBGRADE PREPARATION, 12" @ 95% COMPACTION, CIP	Item includes efforts required to shape, mix, add moisture, compact, bring to grade and maintaining the prepared subgrade moisture and density until the next course of material is placed.
5	TYPE 1 - AGGREGATE BASE COURSE 6" THICK, CLASS I	Item includes material delivered and placed.
6	ASPHALT CONCRETE PAVEMENT, 3" THICK (1-1/2" TYPE B OVER 1-1/2" TYPE B) MACHINE LAYDOWN, CIP	Item includes material delivered and placed.
7	PRIME COAT	Item includes material delivered and placed.
8	ROADWAY PAVEMENT REMOVALS/DISPOSAL, SAWCUT INCLUDED, CIP	Item includes cutting, removal, disposal of existing pavements.
9	REMOVE, DISPOSE & REPLACE EXISTING SIDEWALK & WALL AT WWTP HEADWORKS	Item includes all work necessary to prepare WWTP Headworks facility for connection. Item also includes restoration of existing conditions.
10	CHAIN LINK FENCE, REMOVE, RESET, (MATCH EX.) CIP	Item includes fence removal and replacement. Item includes restoring field conditions to pre-construction conditions
11	REMOVE AND RESET TRAFFIC SIGNS W/ NEW BASE CIP	Item includes sign removal, storage and resetting on new new sign support and base.
12	TRENCH, EXCAVATION, AND BACKFILL 8' DEPTH OR LESS, PIPE NOT INCL.	Item includes trenching, backfilling, and compaction shall be measured along the centerline of the pipe. Depth shall be measured from existing ground to the pipe invert at the time of construction staking for said trench. No Separate payment shall be made for shoring.
13	TRENCH, EXCAVATION, AND BACKFILL, 8'- 12' DEPTH, PIPE NOT INCL. (UNIT PRICE IS 0'-12')	Item includes trenching, backfilling, and compaction shall be measured along the centerline of the pipe. Depth shall be measured from existing ground to the pipe invert at the time of construction staking for said trench. No Separate payment shall be

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		made for shoring.
14	TRENCH, EXCAVATION, AND BACKFILL, 12'-16' DEPTH, PIPE NOT INCL. (UNIT PRICE IS 0' - 16')	Item includes trenching, backfilling, and compaction shall be measured along the centerline of the pipe. Depth shall be measured from existing ground to the pipe invert at the time of construction staking for said trench. No Separate payment shall be made for shoring.
15	TRENCH, EXCAVATION, AND BACKFILL, 16'-20' DEPTH, PIPE NOT INCL. (UNIT PRICE IS 0' - 20')	Item includes trenching, backfilling, and compaction shall be measured along the centerline of the pipe. Depth shall be measured from existing ground to the pipe invert at the time of construction staking for said trench. No Separate payment shall be made for shoring.
16	OVER-EXCAVATION	Required over-excavation for foundation stabilization shall be measured by the cubic yard of material removed and replaced with compacted suitable material. Payment will be made at the unit price per cubic yard of compacted replacement material and shall include excavation, backfill material, and compaction.
17	EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL, CIP	Removal and disposal of unsuitable materials from the construction site shall be measured by the cubic yard of excavated material. Payment will be made at the unit price per cubic yard of excavated material. Unit Price is complete in place.
18	BACKFILL MATERIAL, SELECT, CIP	Where selected material is required in the backfilling operations, the quantity of material will be measured by the cubic yard of compacted material in place in the trench. Payment will be made at the unit price per cubic yard of select material as indicated above. Unit Price is complete in place.
19	6" PVC C900 REUSE WATERLINE, PLACE IN OPEN TRENCH, CIP	Item includes 6" PVC C900 reuse purple waterline placed in open trench and includes all fittings, coupling, joint restraints and warning tape. Working pressure is assumed to be 100 psi.
20	6" AIR RELIEF ASSEMBLY, CIP	Item includes assembly, connection, valve box and lid, adjustment to grade.
21	6" BLOWOFF VALVE ASSEMBLY, CIP	Item includes assembly, connection, and 10'x10' erosion pad of 4" diameter rock 12" thick.
22	6" GATE VALVE AND BOX, CIP	Item includes assembly, connection, valve box and lid, adjustment to grade.
23	RELOCATE GATE VALVE AND BOX	Item includes assembly, connection, valve box and lid, adjustment to grade.
24	ADJUST WATER SERVICE CONNECTION	Item includes all work required to disconnect, relocate, and reconnect existing water service. Removals are inclusive.
25	12" HDPE PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	Item includes 12" HDPE, DR 21, installed in open trench to include joints and connections. Length shall be the intervening distance between the centers of manholes along a line parallel to the pipe invert. No separate payment shall be made for bedding material.
26	18" HDPE PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	Item includes 18" HDPE, DR 21, installed in open trench to include joints and connections. Length shall be the intervening distance between the centers of manholes along a line parallel to the pipe invert. No separate payment shall be made for bedding material.
27	24" HDPE PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	Item includes 24" HDPE, DR 21, installed in open trench to include joints and connections. Length shall be the intervening distance between the centers of manholes along a line parallel to the pipe invert. No separate payment shall be made for bedding material.
28	30" RCP IV, PLACE IN OPEN TRENCH, CIP	Item includes 30" RCP, IV, installed in open trench to include joints and connections. No separate payment shall be made for bedding material.
29	CONNECT EXISTING SEWERLINE TO NEW MANHOLE	Item includes removals, trenching, coring, patch, and grouting invert.

Supplemental Special Provision (SSP)

30	CONNECT NEW SEWERLINE TO EXISTING MANHOLE	Item includes all work necessary to connect to existing manhole and grout invert.
31	REMOVE AND REPLACE FORCEMAIN, CIP	Item includes cutting, removals, connection to new and existing, pipe placement (complete) rerouting, trenching, coring, patch, and grouting, etc.
32	REMOVE AND DISPOSE EXISTING SAS LINE	Item includes removals, trenching, backfilling, compaction, and disposal. No payment will be made until delivery of salvageable materials is verified by Liquid Waste Division.
33	REMOVE AND DISPOSE EXISTING MANHOLE (EX MH #1)	Item includes removals, trenching, backfilling, compaction, and disposal.
34	16" PVC PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	Item includes 16" PVC, DR 21, installed in open trench to include joints and connections. Length shall be the intervening distance between the centers of manholes along a line parallel to the pipe invert. No separate payment shall be made for bedding material.
35	6" PVC PIPE, DR 21, SEWER LATERAL, PLACE IN OPEN TRENCH, CIP	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
36	BY-PASS PUMP NO. 1	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
37	BY-PASS PUMP NO. 2	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
38	BY-PASS PUMP NO. 3	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
39	BY-PASS PUMP NO. 4	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
40	BY-PASS PUMP NO. 5	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
41	BY-PASS PUMP NO. 6	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
42	BY-PASS PUMP NO. 7	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
43	BY-PASS PUMP NO. 8	Item includes all work necessary to by-pass pump existing sanitary sewer flows around work zone.
44	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 601 SWIRE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
45	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 500 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
46	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 502 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
47	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 504 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
48	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 506 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
49	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 508 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
50	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 510 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
51	4" PVC SEWER SERVICE, PLACE IN	Item includes removals, trenching, backfilling, compaction,

Supplemental Special Provision (SSP)

	OPEN TRENCH, CIP - 512 WESTERN DRIVE	connections, pipe, jointing and coupling materials.
52	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 514 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
53	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 516 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
54	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 518 WESTERN DRIVE	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
55	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 1000 W AZTEC BLVD	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials.
56	24" CMP CULVERT, REMOVE AND REPLACE, TRENCH AND BACKFILL INCL., CIP	Item includes removals, trenching, backfilling, compaction, connections, pipe, jointing and coupling materials, and flared metal end sections.
57	REMOVE, DISPOSE AND INSTALL NEW DROP INLET	Item includes removals, disposal trenching, backfilling, compaction, connections, pipe, jointing and coupling materials to remove, dispose and install new drop inlet.
58	REMOVE INLET	Item includes removals, disposal trenching, backfilling, compaction, connections, pipe, jointing and coupling materials to remove existing inlet.
59	EXISTING MANHOLE, ABANDON-IN PLACE, CIP	Item includes manhole abandonment as specified on plans.
60	MANHOLE, 4' DIA, 0'-14' DEEP, CIP	Type C manhole includes excavation, compacted backfilling, shelving, cover or cone, leveling bricks, frame and cover, and concrete pad or collar.
61	MANHOLE, 6' DIA, 0'-14' DEEP, CIP	Type C manhole includes excavation, compacted backfilling, shelving, cover or cone, leveling bricks, frame and cover, and concrete pad or collar.
62	MANHOLE, 6' DIA, 10'-15' DEEP, CIP	Type C manhole includes excavation, compacted backfilling, shelving, cover or cone, leveling bricks, frame and cover, and concrete pad or collar.
63	MANHOLE, 6' DIA, 15'-20' DEEP, CIP	Type C manhole includes excavation, compacted backfilling, shelving, cover or cone, leveling bricks, frame and cover, and concrete pad or collar.
64	MANHOLE, 8' DIA, 0'-14' DEEP, CIP	Type C manhole includes excavation, compacted backfilling, shelving, cover or cone, leveling bricks, frame and cover, and concrete pad or collar.
65	SEEDING, CLASS "A", NATIVE, (DRILL SEED/STRAW MULCH) CIP	Item includes the seed, fertilizer, area preparation, drilling, seeding, mulching, watering, and maintenance.
66	NPDES STORM WATER PERMITTING / SWPPP	Item includes preparation, permitting, maintaining compliance with Section 402 of the clean water act.
67	CONSTRUCTION SURVEYING & STAKING	Item includes precondition survey, construction layout, and as-built survey.
68	TRAFFIC CONTROL AND BARRICADING	Item includes all items necessary permit, divert, maintain vehicular, and pedestrian traffic through project site.
69	CONCRETE BOX CULVERT AND WINGWALLS, CIP	Item includes all items necessary to construct concrete box culvert with inlet and outlet wing walls and Type D Bridge Railing. Item also includes all removals, disposals, trenching, backfilling and compaction.

Supplemental Special Provision (SSP)

70	CONNECT TO WWTP HEADWORKS, CIP	Item includes all items necessary to connect new sanitary outfall line to the WWTP headworks facility.
71	INSTALL OBJECT MARKERS TYPE 3 W/ POSTS CIP	Item includes installation of object marker and posts.
72	MOBILIZATION / DEMOBILIZATION	Item shall not exceed 5% of the total project cost.

**GENERAL CONDITIONS
OF THE
CONTRACT FOR CONSTRUCTION**

The City of Aztec

ARTICLE 1:	GENERAL PROVISIONS
ARTICLE 2:	OWNER
ARTICLE 3:	CONTRACTOR
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ARTICLE 14:	TERMINATION OF THE CONTRACT

ARTICLE 1: GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of (1) the executed Contract for Construction, (2) these General Conditions of the Contract for Construction, (3) any Supplemental Conditions or Special Conditions identified in the Contract for Construction, (4) The Project manual identified in the Contract for Construction, (5) the Drawings identified in the Contract for Construction, (6) Addenda issued prior to the receipt of bids, (7) Contractor's completed Qualification Statement if requested by owner, (8) Contractor's Performance Bond and Contractor's Payment Bond, (9) Notice to Proceed, (10) and any other exhibits and/or post bid adjustments identified in the contract for Construction, (11) Advertisement for Bid, (12) Information for Bidders, and (13) Change Orders issued after execution of the Contract.

1.1.2 THE CONTRACT

The Contract Documents form the Contract and are the exclusive statements of agreement between the parties. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior representations or agreements, either written or oral. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Owner and a Subcontractor or any lower-tier Subcontractor.

1.1.3 THE WORK

Work shall mean construction and service including: supervision, labor, equipment, tools, material, supplies, incidentals operations and activities required by the Contract Documents or reasonably inferable by Contractor there from as necessary to produce the results intended by the Contract Documents in a safe, expeditious, orderly, and workman like manner, and in the best manner known to each respective trade. Only work included in the Contract documents is authorized, and the contractor shall do no work other than that described.

1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner or by separate contractors.

1.1.5 THE DRAWINGS

The Drawings herein referred to, consist of drawings prepared by the owner and are enumerated in the Contract Documents. Drawings are intended to show general arrangements, design, and dimensions of work and are partly diagrammatic. Dimensions shall not be determined by scale or rule.

1.1.6 SPECIFICATIONS AND DRAWINGS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment systems, standards and workmanship and performance of related services for the Work identified in the Contract for Construction. Specifications are separated into titled divisions for convenience of reference only. Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in extent of Work to be performed by any trade. Such separation will not operate to make the Owner an arbiter of labor disputes or work agreements.

1.1.7 THE PROJECT MANUAL

The project manual is a document assembled for the Work, which may include the bidding requirements, sample forms, Conditions of the Contract and Specifications.

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results.

1.2.1 Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.2 APPROVED

The terms “approved”, “equal to”, “directed”, “required”, “ordered”, “designated”, “acceptable”, “satisfactory”, and similar words or phrases will be understood to have reference to action on the part of the Owner’s Representative.

1.2.3

Data in the contract Documents concerning lot size, ground elevations, present obstructions on or near the site, locations and depths of sewers, conduits, pipes, wires, etc., position of sidewalks, curbs, pavements, etc., and nature of ground and subsurface conditions have been obtained from sources the Owner believes reliable, but the Owner do not represent or warrant that this information is accurate or complete. The Contractor shall verify such data to the extent possible through normal construction procedures, including but not limited to contacting utility owners and by prospecting.

1.2.4 OWNER

The City of Aztec. The Owner may act through its City of Aztec Commission or any duly authorized committee or representative thereof.

1.2.5 OWNER’S REPRESENTATIVE

The Owner’s Representative is authorized by the Owner as the administrator of the Contract and will represent the Owner during the progress of the Work. Communications from the Owner to the Contractor and from the Contractor to the Owner shall be as indicated in the Contract Documents.

1.2.6 ENGINEER

When the term “Engineer” is used herein, it shall refer to the Architect or the Engineer specified and defined in the Contract for Construction or its duly authorized representative. Communications to the Architect/Engineer shall be forwarded to the address shown in the Contract for Construction.

1.2.7 CONTRACTOR

The Contractor is the person or entity with whom the Owner has entered into the Contract for Construction. The term “Contractor” means the Contractor or the Contractor’s authorized representative.

1.2.8 SUBCONTRACTOR AND LOWER-TIER SUBCONTRACTOR

A Subcontractor is a person or entity who has a contract with the Contractor to perform any of the Work. The term “Subcontractor” is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or its authorized representative. The term “Subcontractor” also is applicable to those furnishing materials to be incorporated in the Work whether work performed is at the Owner’s site or off site, or both. A lower-tier Subcontractor is a person or entity who has a contract with a Subcontractor or another lower-tier Subcontractor to perform any of the Work at the site. Nothing contained in the Contract Documents shall create contractual relationships between the Owner and any Subcontractor or lower-tier Subcontractor of any tier.

1.2.9 DAY

The term “day” as used in the Contract Documents shall mean calendar day unless otherwise stated.

1.2.10 KNOWLEDGE

The terms “knowledge,” “recognize” and “discover,” their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the contractor knows or should know, recognizes or should know, recognizes or should recognize and discovers or should discover in exercising the care, skill, and diligence of a diligent and prudent contractor familiar with the work. Analogously, the expression “reasonably inferable” and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a diligent and prudent contractor familiar with the work.

1.2.11 PUNCH LIST

“Punch list” means the list of items, prepared in connection with the inspection of the Project by the Owner’s Representative in connection with Substantial Completion of the Work or a Portion of the Work, which the

Owner's Representative has designated as remaining to be performed, completed or corrected before the Work will be accepted by the Owner.

1.2.12 CHANGE ORDER

The Contract may be amended or modified without invalidating the Contract, only by a Change Order, subject to the limitations in Article 7 and elsewhere in the contract documents. A change Order is a written instrument signed by the Owner and the Contractor stating their agreement to a change in the Work, the amount of the adjustment to the Contract Sum, if any, and the extent of the adjustment to the Contract Time, if any. Agreement to any Change Order shall constitute a final settlement of all matters relating to the change in the work which is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments of the Contract sum, time and schedule.

1.2.13 SUBSTANTIAL COMPLETION

The terms "Substantial Completion" or "substantially complete" as used herein shall be construed to mean the completion of the entire Work, including all submittals required under the contract Documents, except minor items which in the opinion of the Owner's Representative will not interfere with the complete and satisfactory use of the facilities for the purposes intended.

1.2.14 FINAL COMPLETION

The date when all punch list items are completed, including all closeout submittals and approval by the Engineer is given to the Owner in writing.

1.2.15 SUPPLEMENTAL AND SPECIAL CONDITIONS

The terms "Supplemental Conditions" or "Special Conditions" shall mean the part of the Contract Documents, which amend, supplement, delete from, or add to these General Conditions.

1.2.16 MINORITY BUSINESS ENTERPRISE

Minority Business Enterprise [MBE] shall mean a business concern which is at least fifty-one percent (51%) owned by one (1) or more minorities as defined below or, in the case of any publicly-owned business, in which at least fifty-one percent (51%) of the stock of which is owned by one (1) or more minorities as defined below, and whose management and daily business operations are controlled by one (1) or more minorities as defined herein.

- .1 "African American", which includes persons having origins in any of the black racial groups of Africa.
- .2 "Hispanic Americans", which includes persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- .3 "Native Americans", which includes persons of American Indian, Eskimo, Aleut, or Native Hawaiian origin.
- .4 "Asian-Pacific Americans", which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S Trust territories of the Pacific, or the northern Marianas.
- .5 "Asian-Indian Americans", which includes persons whose origins are from India, Pakistan, or Bangladesh.

1.2.17 WOMEN BUSINESS ENTERPRISE

Women Business Enterprise [WBE] shall mean a business concern which is at least fifty-one percent (51%) owned by one (1) or more women or, in the case of any publicly-owned business, in which at least fifty-one percent (51%) of the stock of which is owned by one (1) or more women, and whose management and daily business operations are controlled by one (1) or more women.

1.2.18 BUILDING COMMISSIONING

Building Commissioning shall mean the verification by Owner or its separate contractors that building systems are installed in accordance with the plans and specifications and will meet the minimum operational and environmental characteristics indicated in the Contract Documents, commissioning plan and submittals.

Building Commissioning shall be conducted in accordance with the commissioning plan. Contractor support of

the Building Commissioning, where required, shall be a part of the Work of this Contract.

1.3 INTERPRETATION OF CONTRACT REQUIREMENTS

1.3.1 Conflicts: In the event of conflict in the contract documents, the priorities stated below shall govern.

- 1.3.1.1** Addenda shall govern over all other contract documents and subsequent addenda shall govern over prior addenda only to the extent modified.
- 1.3.1.2** In case of conflict between plans and specifications, the specifications shall govern.
- 1.3.1.3** Conflicts within the plans:
 - a) Schedules, when identified as such, shall govern over all other portions of the plans.
 - b) Specific notes shall govern over all other notes and all other portions of the plans except the schedules described in Article 5.01-b (3)(a), above.
 - c) Larger scale drawing shall govern over smaller scale drawings.
 - d) Figured or numerical dimensions shall govern over dimensions obtained by scaling.
- 1.3.1.4** Conflicts within the specifications:

“Contract General Conditions” shall govern over all sections of the specifications except for specific modifications thereto that may be stated in the Supplementary General Conditions or addenda. Now other section of the specifications shall modify the Contract General Conditions.
- 1.3.1.5** In the event that provisions of codes, safety orders, contract documents, referenced manufacturers specifications or industry standards are in conflict, the more restrictive or higher quality shall govern.

1.3.2 Omissions: In the event of omissions in the contract documents, the following shall apply:

- 1.3.2.1** If the contract documents are not complete as to any minor detail of a required construction system or with regard to the manner of combining or installing of parts, materials, or equipment, but there exists an accepted trade standard for good and skillful construction, such detail shall be deemed to be an implied requirement of the contract documents in accordance with such standard. “Minor Detail” shall include the concept of substantially identical components, where the price of each such component is small even through the aggregate cost or importance is substantial, and shall include a single component that is incidental, even though its cost or importance may be substantial.
- 1.3.2.2** The quality and quantity of the parts or material so supplied shall conform to trade standards and be compatible with the type, composition, strength, size, and profile of the parts of materials otherwise set forth in the contract documents.

1.4 EXECUTION OR CONTRACT DOCUMENTS

1.4.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents. Contractor represents that is has performed its own investigation and examination of the Work site and its surrounding and satisfied itself before entering into this contract as to:

- .1 conditions bearing upon transportation, disposal, handling, and storage of materials;
- .2 the availability of labor, materials, equipment, water, electrical power, utilities and roads;
- .3 uncertainties of weather, river stages, flooding and similar characteristics of the site;
- .4 conditions bearing upon security and protection of material, equipment, and Work in progress;
- .5 the form and nature of the Work site, including the surface and sub-surface conditions;

- .6 the extent and nature of Work and materials necessary for the execution of the Work and the remedying of any defects therein; and
- .7 the means of access to the site and the accommodations it may require and, in general, shall be deemed to have obtained all information as to risks, contingencies and other circumstances.

1.4.2 The Owner assumes no responsibility or liability for the physical conditions or safety of the Work site of any improvements located on the Work site. The Contractor shall be solely responsible for providing a safe place for the performance of the work. The Owner shall not be required to make any adjustment in either the contract Sum or Contract Time concerning any failure by the Contractor or any Subcontractor to comply with the requirements of this Paragraph.

1.4.3 Drawings, specifications, and copies thereof furnished by the Owner are and shall remain the Owner's property. They are not to be used on another project and, with the exception of one contract set for each party to the Contract, shall be returned to the Owner's Representative on request, at the completion of the Work.

1.4.4 REQUIRED PROVISIONS DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be read and enforced as though it were included herein; and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the written application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

1.5 OWNERSHIP AND USE OF ENGINEER'S DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS INSTRUMENTS OF SERVICE

1.5.1 In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall (1) provide the better quality or greater quantity of Work or (2) comply with the more stringent requirement; either or both in accordance with the Owner's Representative's interpretation. On the Drawings, given dimensions shall take precedence over scaled measurements, and large scale drawings over small-scale drawings. Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall be submitted to the Contractor and each Subcontractor shall verify measurements at the Work site and shall be responsible for the correctness of such measurements. Any difference, which may be found, shall be submitted to the Owner's Representative for resolution before proceeding with the Work. If a minor change in the Work is found necessary due to actual field conditions, the Contractor shall submit detailed drawings of such departure for the approval by the Owner's Representative before making the change.

ARTICLE 2: OWNER

2.1 GENERAL

- 2.1.1** The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided, the Engineer does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.
- 2.1.2** The Owner shall furnish to the Contractor within 15 days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights.

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

- 2.2.1** Except for permits and fees which are the responsibility of the Contractor under the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, test and balance, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- 2.2.2** The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. Data in the Contract Documents concerning lot size, ground elevations, present obstructions on or near the site, locations and depths of sewers, conduits, pipes, wires, etc., position of sidewalks, curbs, pavements, etc., and nature of ground and subsurface conditions have been obtained from sources the Owner believes reliable, but the Owner does not represent or warrant that this information is accurate or complete. The Contractor shall verify such data to the extent possible through normal construction procedures, including but not limited to contracting utility owners and by prospecting.
- 2.2.3** Information or services required of the Owner by the Contract Documents shall be furnished by the Owner with reasonable promptness. Any other information or services relevant to the Contractor's performance of the Work under the Owner's control shall be furnished by the Owner after receipt from the Contractor of a written request for such information or services.
- 2.2.4** Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, such copies of Drawings and Project manuals as are reasonably necessary for execution of the Work

2.3 OWNER'S RIGHT TO STOP THE WORK

- 2.3.1** If the Contractor fails to perform or correct Work which is not in accordance with the requirements of the Contract Documents, fails to supply adequate working force (number and skill level), fails to supply material of proper quality, or fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the owner to exercise this right for the benefit of the Contractor or any other person or entity except to the extent required by Subparagraph 6.1.3..

2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

- 2.4.1** If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven (7) day period after receipt of a written notice from the Owner to correct such default or neglect, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. In such case, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Owner's additional services and expenses made necessary by such default or neglect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the differences to Owner.

2.4.2 In the event the Contractor has not satisfactorily completed all items on the Punch List by the Final Completion Date, the Owner reserves the right to complete the Punch List without further notice to the Contractor or its surety. In such case, Owner shall be entitled to deduct from payments then or thereafter due the Contractor the cost of completing the Punch List items. If payments then or thereafter due Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to Owner.

2.5 EXTENT OF OWNER'S RIGHTS

2.5.1 The rights stated in this Article 2 and elsewhere in the Contract Documents are cumulative and not in limitation of any rights of the Owner (1) granted in the Contract Documents, (2) at law or (3) in equity.

2.5.2 In no event shall the Owner have control over, charge of, or any responsibility for construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the Work, notwithstanding any of the rights and authority granted the Owner in the Contract Documents.

ARTICLE 3: CONTRACTOR

3.1 GENERAL

- 3.1.1** The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- 3.1.2** The Contractor shall perform the Work in accordance with the Contract Documents.
- 3.1.3** The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Owner in the Owner's administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.
- 3.1.4** During the progress of the Work, Contractor shall verify all field measurements prior to fabrication of building components or equipment, and proceed with the fabrication to meet field conditions. Contractor shall prepare coordination drawings to ensure the proper fitting of the Work in place. Contractor shall consult all Contract Documents to determine the exact location of all work and verify spatial relationships to all work. Any question concerning the location or spatial relationship shall be submitted to the Owner. Specific locations for equipment, pipelines, ductwork and other such items of work, where not dimensioned on plans, shall be determined in consultation with the Owner.

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

- 3.2.1** Since the Contract Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Contractor's coordination drawings as required and other Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Subparagraph 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies or omissions discovered by the Contractor shall be reported promptly, so as not to delay progress of the work, to the Owner as a request for information in such form as the Owner may require. If the Contractor performs any construction activity which it knows or should have known involves a recognized error, inconsistency or omission in the Contract Documents without such written notice to the Owner, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.
- 3.2.2** The Contractor shall be responsible for preparing construction coordination and construction assembly drawings to plan the Work and proper fitting of the Work. The Contractor shall coordinate all construction operations, all subcontractors, all material suppliers and all work for this project to insure the efficient and orderly installation of all work so as to produce a high quality project that complies with the contract documents. Specific locations for partitions, structure, equipment, pipelines, ductwork, and all other such items of Work, both above ceilings, below slabs and in the useable spaces shall be indicated. The best sequence of Work shall be considered. During the process of preparing the drawings, the contractor shall verify all field dimensions and measurements prior to fabricating and installation of Work. The contractor shall consult all Contract Documents to determine the location of all Work and to verify spatial relationships of the Work. The purpose of assembling these drawings is to coordinate the location and installation sequence of Work, to avoid waste and loss, but not to perform design functions. Any questions and conflicts shall be brought to the attention of the Owner for resolution before Work proceeds. Reasonable time for this Work shall be included in the Contract Time.
- 3.2.3** Any design inconsistencies, errors or omissions noted by the Contractor during this review shall be reported promptly, so as not to delay the progress of the Work, to the Owner, but it is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The Contractor is not required, but shall use best efforts to ascertain that the Contract Documents are in accordance with

applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity discovered by or made known to the Contractor shall be reported promptly to the Owner.

- 3.2.4** If the Contractor performs any construction activity which it knows involves a recognized error, inconsistency, or omission in the Contract Documents without such written notice to the Owner, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction. The Contractor shall not be liable to the Owner for damages resulting from errors, inconsistencies or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Owner.
- 3.2.5** If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Owner in response to the Contractor's notices or requests for information, the Contractor shall make Claims. If the Contractor fails to perform the obligations of Subparagraphs 3.2.1 and 3.2.2 and 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- 3.3.1** The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for job site safety, and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the job site safety and, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and shall not proceed with that portion of the Work without further written instructions from the Owner. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any resulting loss or damage.
- 3.3.2** The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors. The Contractor shall supply sufficient and competent supervision and personnel, and sufficient material, plant, and equipment to prosecute the Work with diligence to ensure completion within the time specified in the Contract Documents.
- 3.3.3** The Contractor shall be represented at the site by a competent superintendent from the beginning of the Work, who shall not be reassigned until its final acceptance, unless otherwise permitted in writing by the Owner. The superintendent for the Contractor shall exercise general supervision over the Work and such superintendent shall have decision-making authority of the Contractor.
- 3.3.4** Communications given to the superintendent shall be binding as if given to the Contractor. These communications shall be provided in writing to the superintendent, with a copy to the Contractor.
- 3.3.5** The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.
- 3.3.6** The Contractor's scheduled outage/tie-in plan, time, and date is subject to approval by the Owner. Failure of Contractor to secure Owner's approval shall cause the Contractor to waive any right to an adjustment of the Contract Sum or Contract Time for any postponement, rescheduling or other delays ordered by Owner in connection with such Work. Owner's approval shall not be unreasonably withheld.

- 3.3.7** The Contractor shall coordinate all Work so there shall be no prolonged interruption of existing utilities, systems and equipment of Owner. Any existing plumbing, heating, ventilating, air conditioning, or electrical disconnection necessary, which affect portions of this construction or building or any other building, must be scheduled with the Owner to avoid any disruption of operation within the building under construction or other buildings or utilities. In no case shall utilities be left disconnected at the end of a workday or over a weekend. Any interruption of utilities, either intentionally or accidentally, shall not relieve the Contractor from repairing and restoring the utility to normal service. Repairs and restoration shall be made before the workers responsible for the repair and restoration leave the job.
- 3.3.8** The Contractor shall be responsible for repair of damage to property caused by the Contractor on or off the project occurring during construction of the project, and all such repairs shall be made to meet code requirements or to the satisfaction of the Owner if code is not applicable, if possible, given the availability of parts, equipment and services necessary to effect the repair/restoration. Cost of expediting repair/restoration shall be the Contractor's provided the cause of the accidental interruption is the Contractor's.

3.4 USE OF SITE

- 3.4.1** The Contractor shall limit operations and storage of material to the area within the Work limit lines shown on Drawings, except as necessary to connect to existing utilities, shall not encroach on neighboring property, and shall exercise caution to prevent damage to existing structures.
- 3.4.2** The Contractor shall ensure that the Work is at all times performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed in such a manner that public areas adjacent to the site of the Work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitations of any other provision of the Contract Documents, Contractor shall not interfere with the occupancy or beneficial use of (1) any areas and buildings adjacent to the site of the Work or (2) the work in the event of partial occupancy. Owner may agree, in writing, to disruption of adjacent buildings, if necessary to properly perform the Work. Contractor shall assume full responsibility for any damage to the property comprising the work or to the owner or occupant of any adjacent land or areas resulting from the performance of the Work.
- 3.4.3** The Contractor shall not permit any workers to use existing facilities at the Work site, including, without limitation, lavatories, toilets, entrances and parking areas other than those designated by Owner. The Contractor, Subcontractor of any tier, suppliers and employees shall comply with instructions or regulations of the Owner's governing access to, operation of, and conduct while in or on the premises and shall perform all Work required under the contract Documents in such a manner as not to unreasonably interrupt or interfere with the conduct of Owner's operations. Any request for Work, a suspension of Work or any other request or directive received by the Contractor from occupants of existing buildings shall be referred to the Owner for determination.
- 3.4.4** The Contractor shall keep the Work site and surrounding areas free from accumulation of waste materials, rubbish, debris, and dirt resulting from the Work and shall clean the Work site and surrounding areas as requested by the Owner. The Contractor shall be responsible for clean up and removal of debris from premises. The building and premises shall be kept clean, safe, in workmanlike manner, in compliance with OSHA standards at all times. At completion of the Work, the Contractor shall remove from and about the Work site tools, construction equipment, machinery, fencing, and surplus materials. Further, at the completion of the work, all dirt, stains, and smudges shall be removed from every part of the building, all glass in doors and windows shall be washed, and entire Work shall be left broom clean in a finished state ready for occupancy. If the Contractor fails to comply with the provisions of this paragraph, the Owner may do so, upon proper notice, and the cost shall be charged to the Contractor.

3.5 LABOR AND MATERIALS

- 3.5.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

- 3.5.2** The Contractor may make substitutions only with the consent of the Owner, after evaluation by the Owner and in accordance with a Change Order, as set forth in Section 3.13.
- 3.5.3** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.
- 3.6 WARRANTY**
- 3.6.1** The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents for a period of twelve months after Substantial Completion or specific acceptance as provided in this Contract. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Should the Contractor fail or refuse to make the necessary repairs, replacements, and tests when requested by the Owner or Owner, the Owner may perform, or cause the necessary work and tests to be performed, at the Contractor's expense, or exercise the Owner's rights under Article 14.
- 3.6.2** Neither the final payment nor any provision in the Contract Documents nor partial or entire occupancy of the premises by the Owner, nor expiration of warranty stated herein, will constitute an acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any responsibility for non-conforming work. The Contractor shall immediately remedy any defects in the Work and pay for any resulting damage upon written notice from the Owner. Should the Contractor fail or refuse to remedy the non-conforming work, the Owner may perform, or cause to be performed the work necessary to bring the work into conformance with the Contract Documents at the Contractor's expense.
- 3.7 TAXES**
- 3.7.1** The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor which are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.
- 3.7.2** The Contractor will comply with the requirements of the State of New Mexico Gross Receipts Law and all amendments to same and will require all subcontractors to comply with the same.
- 3.8 PERMITS, FEES, AND NOTICES**
- 3.8.1** The Contractor will procure all certificates of inspection, use occupancy, permits and licenses, pay all charges and fees and give all notices necessary and incidental to the due and lawful prosecution of the Work. Certificates of inspection, use and occupancy will be delivered to the Owner upon completion of the Work in sufficient time for occupation of the Project in accordance with the approved schedule for the Work. A photocopy of the building permit will be delivered to the Owner as soon as it is obtained. Upon final completion, the Contractor will deliver all original permits, licenses, and certificates to the Owner and will deliver photocopies to the Owner. The costs of such procurement, payment and delivery are included within the Contract Sum. If a change Order affects any applicable Building Codes for the Project, new drawings will be submitted by the Contractor to proper authorities for approval. The Contractor will alert the Owner of the need for additional drawings if the Contractor knows that additional drawings will be needed to submit to appropriate governmental authorities for approval.
- 3.8.2** The contractor shall comply with and give notices required by laws, regulations and lawful orders of public authorities applicable to performance of the Work.

- 3.8.3** It is not the contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. However, if the Contractor observes that portions of the Contract Documents are at variance therewith, the Contractor shall promptly, so as not to delay the progress of the Work, notify the Owner in writing, and necessary changes shall be accomplished by appropriate Modification.
- 3.8.4** If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Owner, the Contractor shall assume full responsibility for such Work and shall bear the costs attributable to correction.
- 3.9 ALLOWANCES**
- 3.9.1** The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.
- 3.9.2** Unless otherwise provided in the Contract Documents:
- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discount;
 - .2 contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances;
 - .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual cost and the allowances under Clause 3.9.2.1 and (2) changes in Contractor's costs under Clause 3.9.2.2.
- 3.9.3** Materials and equipment under an allowance shall be selected by the Owner in sufficient time to avoid delay in the Work.
- 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES**
- 3.10.1** The Contractor, within **FIVE (5) days** after issuance of Notice to Proceed, shall prepare and submit for the Owner's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall include a critical path schedule, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.
- 3.10.2** The Contractor shall prepare and keep current, for the Owner's approval, a schedule of submittals that is coordinated with the Contractor's construction schedule and allows the Owner reasonable time to review submittals.
- 3.10.3** The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner.
- 3.10.4** In the event the Owner determines that the performance of the Work, as of a Owner specified completion date as identified in the Construction Documents , is not progressing or reached the level of completion required by the Contract Documents, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment, facilities, (3) expediting delivery of materials, and (4) other similar measures. Such corrective measures shall

continue until the progress of the Work complies with the stage of completion required by the Construction Documents. The Owner's right to require corrective measures is solely for the purpose of ensuring the Contractor's compliance with the construction schedule. The Contractor shall not be entitled to an adjustment in the Contract Sum specific to these corrective measures.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

- 3.11.1** The Contractor shall maintain at the site for the Owner one record copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record field changes and selections made during construction, and one record copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Owner and shall be delivered to the Owner upon completion of the Work.

3.12 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- 3.12.1** Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- 3.12.2** Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- 3.12.3** Samples are physical examples, which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
- 3.12.4** Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Informational submittals upon which the Owner is not expected to take responsive action may be so identified in the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Owner without action.
- 3.12.5** The Contractor shall review for compliance with the Contract Drawings, approve and submit to the Owner Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Owner without action.
- 3.12.6** By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Drawings.
- 3.12.7** The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Owner.
- 3.12.8** The Work shall be in accordance with approved submittals: except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Owner's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contract has specifically informed the Owner in writing of such deviation at the time of submittal and (1) the Owner has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be

relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Owner's approval thereof.

- 3.12.9** The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Owner on previous submittals. In the absence of such written notice the Owner's approval of a resubmission shall not apply to such revisions.
- 3.12.10** The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certification by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Owner. The Owner shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed by such design professionals, provided the Owner have specified to the Contractor all performance and design criteria that such services must satisfy. The Owner will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

3.13 SUBSTITUTIONS

- 3.13.1** A substitution is a Contractor proposal of an alternate product or method in lieu of has been specified or shown in the Contract Documents.
- 3.13.2** Contractor may make a proposal to the Owner's Representative to use substitute products or methods as set forth herein, but the Owner's Representative's decision concerning acceptance of a substitute shall be final. The Contractor must do so in writing and setting forth the following:
- .1 full explanation of the proposed substitution and submittal of all supporting data including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other like information necessary for a complete evaluation of the substitution.
 - .2 reasons the substitution is advantageous and necessary, including the benefits to the Owner and the Work in the event the substitution is acceptable.
 - .3 the adjustment, if any, in the Contract Sum, in the event the substitution is acceptable.
 - .4 the adjustment, if any, in the time of completion of the Contract and the construction schedule in the event the substitution is acceptable.
 - .5 proposals for substitutions shall be submitted to the Owner in sufficient time to allow the Owner no less than ten (10) working days for review. No substitution will be considered or allowed without the Contractor's submittal of complete substantiating data and information as stated herein.
- 3.13.3** Substitutions may be rejected at the Owner's sole discretion
- 3.13.4** Whether or not any proposed substitution is accepted by the Owner, the Contractor shall reimburse the Owner for any additional service fees charged by the Engineer or other consultants for evaluating each proposed substitute if the substitution is made after the submittal process has been completed.

3.14 CUTTING AND PATCHING

- 3.14.1** The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.
- 3.14.2** The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction by the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

3.15 ROYALTIES, PATENTS, AND COPYRIGHTS

- 3.15.1** The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Owner.

3.16 INDEMNIFICATION

- 3.16.1** In claims against any person or entity indemnified under this Paragraph 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Subparagraph 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

3.17 REPRESENTATIONS AND WARRANTIES

- 3.17.1** The Contractor represents and warrants the following to the Owner (in addition to the other representations and warranties contained in the Contract Documents), as an inducement to the Owner to execute the Owner-Contractor Agreement, which representations and warranties will survive the execution and delivery of the Owner-Contractor Agreement and the final completion of the Work:
- (a) that the Contractor is financially solvent, able to pay his debts as they mature and possessed of sufficient working capital to complete the Work and perform Contractor's obligations under the Contract Documents;
 - (b) that the Contractor is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform Contractor's obligations hereunder and has sufficient experience and competence to do so;
 - (c) that the Contractor is authorized to do business in the State of New Mexico where the Project is located and properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over the Contractor and over the Work and the site of the Project;
 - (d) that Contractor's execution of the Owner-Contractor Agreement and Contractor's performance thereof is within Contractor's duly authorized powers; and
 - (e) that Contractor's duly authorized representative has visited the site of the Work, familiarized themselves with the local conditions under which the Work is to be performed, and correlated their observations with the requirements of the Contract Documents.

3.18 SUBSURFACE UTILITIES

- 3.18.1** Owner will comply with NMSA 1978, Chapter 62, Article 14 (the New Mexico Excavation Law) by performing utility spotting activities or by employing a qualified utility spotting company, or both. The Owner will provide the latest and best underground utility information available regarding the campus in

the form of Utility Mapping Drawings. In addition, the Contractor shall perform utility spotting work. The Contractor shall locate, spot and find all utilities within the project boundaries or affected by the project. The Contractor shall repair any and all damaged utilities caused by excavation and spotting activities. Costs for this work shall be included in the Contract Price. Owner will not recognize claims for spotting or repairing concealed or unknown subsurface utilities. The Owner will process an appropriate Change Order if concealed or unknown subsurface utilities must be relocated in order to construct the project as indicated in the Contract Documents.

ARTICLE 4: ADMINISTRATION OF THE CONTRACT

4.1 ENGINEER

- 4.1.1** The Engineer is the person lawfully licensed to practice Engineering/architecture or an entity lawfully practicing engineering/architecture identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Engineer" means the Engineer or the Engineer's authorized representative.
- 4.1.2** Owner reserves the right to appoint a representative empowered to act for Owner during the administration of the Contract with such duties and responsibilities as set forth in a written notice to Contractor.
- 4.1.3** Owner may employ or retain any licensed Engineer to perform any part of the duties or responsibilities of the Engineer hereunder or perform them through Owner's representative. In the event that employment of the Engineer is terminated, Owner will give prompt written notice to the Contractor of the termination and the scope of the Engineer's duties to be assumed by a replacement Engineer or the Owner's representative.

4.2 ENGINEER'S ADMINISTRATION OF THE CONTRACT

- 4.2.1** The Engineer will provide administration of the Contract as described in the Contract Documents, and will be an Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Paragraph 12.2. The Engineer will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.
- 4.2.2** The Engineer, as a representative of the Owner, will visit the site at intervals appropriate to the stage of the Contractor's operations (1) to become familiar with and to keep the Owner informed about the progress and quality of the Work, (2) to use best efforts to guard the Owner against defects and deficiencies in the Work, (3) to determine if the Work is proceeding in accordance with the Contract Documents; and (4) cause Engineer's Consultants to perform observations necessary to determine that key components of the Work are being carried out in accordance with the Contract Documents. If Engineer or its Consultants becomes aware of the failure of Contractor, Subcontractor or any other persons performing any of the Work not in accordance with the Contract Documents the Engineer shall promptly notify Owner.
- 4.2.3** The duties and responsibilities of the Engineer set forth in Subparagraph 4.2.2 are solely for the benefit of the Owner, and the Engineer's performance or non-performance of its obligations under Subparagraph 4.2.2 shall not relieve the Contractor of its responsibility to perform the Work in accordance with the Contract Documents. The Engineer will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.
- 4.2.4** Communications Facilitating Contract Administration. Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized or requested by the Owner, the Owner and Contractor shall communicate with each other through the Engineer about matters arising out of or relating to the Contract. Communications by and with the Engineer's consultants shall be through the Engineer. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.
- 4.2.5** Based on the Engineer's evaluations of the progress and quality of the Work, Contractor's Applications for Payment and all other information available to the Engineer, the Engineer shall within three (3) business days of receipt of a properly executed Application for Payment certify to the Owner the undisputed amount recommended for payment to the Contractor.

- 4.2.6** The Engineer will have authority to reject Work that does not conform to the Contract Documents, and shall do so unless, after consultation with the Owner, Owner instructs otherwise. Whenever the Engineer in the exercise of Engineer's professional opinion considers it necessary or advisable, the Engineer will have authority subject to the Owner's prior approval to require inspection or testing of the Work in accordance with Subparagraphs 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Engineer nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Engineer to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.
- 4.2.7** The Engineer will promptly review and approve, reject or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance the Contract Documents. Review of such submittals is conducted solely in the interests of the Owner, and shall not relieve the Contractor of responsibility for-determining the accuracy and completeness of other details such as dimensions and quantities, proper fit of portions or components of the Work to each other, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Engineer's review of the contractor's submittals shall not relieve the Contractor of the obligations under Paragraphs 3.3, 3.5, and 3.12. The Engineer's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Engineer, of any construction means, methods, techniques, sequences or procedures. The Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- 4.2.8** The Engineer will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Paragraph 7.4. All Change Orders and Construction Change Directives shall require the approval of the Owner in writing to be binding on the Owner.
- 4.2.9** The Engineer will conduct inspections to make recommendations to the Owner of the date or dates of Substantial Completion and the date of final completion, will receive, approve and forward to the Owner, written warranties and related documents required by the Contract, and will recommend a final Certificate for Payment upon compliance with the requirements of the Contract Documents and the Prompt Payment Act.
- 4.2.10** If the Owner and Engineer agree, the Engineer will provide one or more project representatives to assist in carrying out the Engineer's responsibilities at the site.
- 4.2.11** Subject to the claims procedures set forth in Paragraph 4.3, the Engineer will interpret and decide matters concerning performance under the Contract Documents on written request of either the Owner or Contractor. Upon receipt of such request from either the Owner or Contractor, the Engineer shall promptly notify the non-requesting party of the details of the request. The Engineer's response to the request will be made promptly, and in no event later than 15 days after the date on which such request is made. Delay shall not be recognized on account of failure by the Engineer to furnish such interpretations until 15 days after written request is made for them.
- 4.2.12** Interpretations and decisions of the Engineer will be consistent with Contract Documents and will be in writing or in the form of drawings. When making such interpretations and initial decisions, the Engineer will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith.

4.3 CLAIMS AND DISPUTES

- 4.3.1 Definition:** A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or related to the Contract. Claims must be

initiated by written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.

- 4.3.2 Time Limits on Claims:** Claims by Owner or Contractor must be initiated within 14 days after occurrence of the event giving rise to such Claim or within 14 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims must be initiated by written notice to the Engineer and the other party. Owner, Contractor and Engineer shall cooperate in efforts to mitigate the alleged or potential damages, delay, or other adverse consequences arising out of the condition which is the cause of such Claim.
- 4.3.3 Continuing Contract Performance:** Pending final resolution of a Claim except as otherwise directed by the Owner in writing or as provided in Subparagraph 9.7.1 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.
- 4.3.4 Claims for Concealed or Unknown Conditions:** If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than 5 days after first observance of the conditions. The Engineer will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will notify the Owner and Contractor stating the reasons, request information from the Contractor substantiating such cost and time impacts, and recommend to the Owner an equitable adjustment in the Contract Sum or Contract Time, or both. If the Engineer determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Engineer shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 14 days after the Engineer has given notice of the decision. If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but if the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Engineer for initial determination, subject to further proceedings pursuant to Paragraph 4.4.
- 4.3.5 Claims for Additional Cost:** If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Paragraph 10.6. Contractor shall, upon recognition of a condition giving rise to a claim for additional cost, establish separate accounting codes or other methods for quantifying the cost or time impact attributable to the Claim. Written notice of the Claims shall itemize the claim and contain sufficient detail, including but not limited to the information required above, to permit evaluation of the claim by the Owner and Engineer. Engineer will give prompt notice to Contractor of inadequacies in the supporting information. No claim for delay shall be recognized for periods of time between the initial assertion of the claim and submission of adequate information for the Owner and Engineer to evaluate the claim or for a period of fifteen (15) days after submission of adequate information for evaluation.
- 4.3.6** If the Contractor believes additional cost is involved for reasons including but not limited to (1) a written interpretation from the Engineer, (2) an order by the Owner to stop the Work where the Contractor was not at fault, (3) a written order for a minor change in the Work issued by the Engineer, (4) unjustified failure of payment by the Owner, (5) termination of the Contract by the Owner, (6) Owner's suspension or (7) other reasonable grounds, Claim shall be filed in accordance with this Paragraph 4.3.
- 4.3.7 CLAIMS FOR ADDITIONAL TIME**
- 4.3.7.1** If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of

probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

4.3.7.2 If adverse weather conditions are the basis for a Claim for additional time, such claim shall be documented by U.S. Weather Bureau Climatological Reports for the month(s) involved plus a report indicating the average precipitation, temperature, etc. for the past ten (10) years from the nearest reporting station. The ten-year average shall be the basis for determining the number of adverse weather days that the Contractor should reasonably have anticipated and the conditions the Contractor should reasonably have expected to encounter.

4.3.8 Injury or Damage to Person or Property: If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding seven (7) days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

4.3.9 If unit prices are stated in the contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

4.3.10 Claims for Consequential Damages: The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the contractor for principal and field office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Subparagraph 4.3.10 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

4.4 RESOLUTION OF CLAIMS AND DISPUTES

4.4.1 Decision of Engineer: Claims, including those alleging an error or omission by the Engineer but excluding those arising under Paragraphs 10.3 through 10.5, shall be referred initially to the Engineer for decision. An initial decision by the Engineer shall be required as a condition precedent to mediation, arbitration or litigation of all Claims between the Contractor and Owner arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Engineer with no decision having been rendered by the Engineer. The Engineer will not decide disputes between the Contractor and persons or entities other than the Owner.

4.4.2 The Engineer will review Claims and within ten days of the receipt of the Claim take one or of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, or (4) suggest a compromise.

4.4.3 In evaluating Claims, the Engineer may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Engineer in rendering a decision. The Engineer may request the Owner to authorize retention of such persons at the Owner's expense.

4.4.4 If the Engineer requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either provide a response on the requested supporting data, advise the Engineer when the response or supporting data

will be furnished or advise the Engineer that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Engineer will either reject or approve the Claim in whole or in part.

- 4.4.5** The Engineer will approve or reject Claims by written decision, which shall state the reasons therefore and which shall notify the parties of any change in the Contract Sum or Contract Time or both. The approval or rejection of a Claim by the Engineer shall be final and binding on the parties subject to mediation and arbitration.
- 4.4.6** A written decision of the Engineer shall state that (1) the decision is final but subject to mediation and arbitration and (2) a demand for arbitration of a Claim covered by such decision must be made within 30 days after the date on which the party making the demand receives the final written decision. Failure to demand arbitration within said 30 days period shall result in the Engineer's decision becoming final and binding upon the Owner and Contractor. If the Engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence, but shall not supersede arbitration proceedings unless the decision is acceptable to all parties concerned.
- 4.4.7** Upon receipt of a Claim against the Contractor or at any time thereafter, the Engineer or the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Engineer or the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.
- 4.4.8** If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the Claim by the Engineer, by mediation or by arbitration.

4.5 MEDIATION

- 4.5.1** Any Claim arising out of or related to the Contract, except Claims waived as provided for in Subparagraphs 4.3.10, 9.10.4 and 9.10.5 shall, after initial decision by the Engineer or 30 days after submission of the Claim to the Engineer, be subject to mediation as a condition precedent to arbitration or the institution of legal or equitable proceedings by either party.
- 4.5.2** The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the procedures of the New Mexico Public Works Mediation Act (NMSA § 13-4C-1 et seq.) except that before any party may select a mediator it must confer in good faith with the other party concerning the selection of a mutually acceptable mediator. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of notice of mediation session, unless stayed for a longer period by agreement of the parties or court order.
- 4.5.3** Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

4.6 ARBITRATION

- 4.6.1** Any Claim arising out of or related to the Contract, except Claims waived as provided for in Subparagraphs 4.3.10, 9.10.4 and 9.10.5 shall, after decision by the Engineer or 30 days after submission of the Claim to the Engineer, be subject to arbitration. Prior to arbitration, the parties shall endeavor to resolve disputes by mediation in accordance with the provisions of Paragraph 4.5.
- 4.6.2** Claims not resolved by mediation shall be decided by arbitration which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect. The demand for arbitration shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Engineer.

- 4.6.3** A demand for arbitration shall be made within the time limits specified in Subparagraphs 4.4.6 and 4.6.1 as applicable, and in other cases within a reasonable time after the Claim has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations as determined pursuant to Paragraph 13.7.
- 4.6.4** **Claims and Timely Assertion of Claims:** The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that part on which arbitration is permitted to be demanded.
- 4.6.5** **Judgment on Final Award:** The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

ARTICLE 5: SUBCONTRACTORS

5.1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- 5.1.1** Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract" shall furnish in writing to the Owner the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design and where applicable the name of the installing contractor), trades and proposed work scope for each portion of the Work. The Owner will promptly reply to the Contractor in writing stating whether or not the Owner, after due investigation, has reasonable objection to any such proposed person or entity. All Subcontractors must meet all the required contracting licensing and bonding requirements.
- 5.1.2** The Contractor shall not contract with a proposed person or entity to whom the Owner or Engineer has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.
- 5.1.3** If the Owner or Engineer has reasonable objection to a person or entity proposed by the Contractor, or Subcontractor, the Contractor shall propose another to whom the Owner or Engineer has no reasonable objection.
- 5.1.4** The Contractor shall furnish a complete list of Subcontractors changes, each and every time a proposed change is to be requested by the Contractor. Any substitutions of a Subcontractor will comply with the New Mexico Subcontractor Fair Practices Act to the extent that the Subcontractors Fair Practices Act is applicable. The Contractor shall not substitute a Subcontractor, person or entity previously selected if the Owner makes reasonable objection to such substitution.

5.2 SUBCONTRACTURAL RELATIONS

- 5.2.1** By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Engineer. Each subcontract agreement shall preserve and protect the rights of the Owner and Engineer under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.
- 5.2.2** All agreements between the Contractor and a Subcontractor or supplier shall contain provisions whereby Subcontractor or supplier waives all rights against the Owner, contractor, Owner's representative, Engineer and all other additional insureds for all losses and damages caused by, arising out of, or resulting from any of the perils covered by property or builders risk insurance coverage required of the Contractor in the Contract Documents. If insureds on any such policies require separate waiver forms to be signed by any Subcontractors of any tier or suppliers, Contractor shall obtain the same.

5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

- 5.3.1** Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner provided that:

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Paragraph 14.2 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and the Contractor in writing; and
- .2 assignment is subject to prior rights of the surety, if any, obligated under bond relating to the Contract.

5.3.2 Upon such assignment, if the Work has been suspended for more than 30 consecutive days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

ARTICLE 6: CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

- 6.1.1** The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Paragraph 4.3.
- 6.1.2** When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- 6.1.3** The Owner or Engineer shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with the other separate contractors, the owners' forces and the Owner in reviewing and coordinating the construction work and schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised. The contractor shall complete the work correctly and at the proper time and not delay or cause additional expense to another contractor.
- 6.1.4** Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights which apply to the Contractor under the Conditions of the Contract.
- 6.1.5** Owners Commissioning Agent: In addition to the Contractors equipment start-up and operational testing as required by the Contract Documents, the Owner may enter into separate contracts for Commissioning Services, the scope of which is generally contained in the Contract Documents. The Contractor and the associated subcontractors shall fully support the Owners Commissioning activities as required by the Contract Documents.

6.2 MUTUAL RESPONSIBILITY

- 6.2.1** The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of materials and equipment and performance of activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.
- 6.2.2** If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly, so as not to delay the project, report to the Engineer and Owner apparent discrepancies or defects in such other construction that would render it unsuitable for proper execution and results. The Contractor's failure to promptly, so as not to delay the project, report such discrepancies or defects constitutes acknowledgement and acceptance that the Owner's or separate contractor's completed or partially completed Work is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.
- 6.2.3** The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction of the Owner or separate contractor.

- 6.2.4** The Contractor shall promptly remedy damage caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors as provided in Subparagraph 10.2.5.
- 6.2.5** The Owner and each separate contractor shall have the same responsibilities for cutting and patching and clean up as are described for the Contractor in Subparagraph 3.14 and 3.15.
- 6.3 OWNER'S RIGHT TO CLEAN UP**
- 6.3.1** If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and allocate the cost among those responsible.

ARTICLE 7: CLAIMS AND DAMAGES

7.1 GENERAL

- 7.1.1** Changes in the Work may be accomplished after execution of the Contract and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.
- 7.1.2** A Change Order shall be based upon agreement among the Owner, Contractor and Engineer. A Construction Change Directive requires agreement among the Owner, Contractor and Engineer and may or may not be agreed to by the Contractor; an order for a minor change in the works may be issued by the Engineer alone.
- 7.1.3** Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor will proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

7.2 CHANGE ORDERS

- 7.2.1** A Change Order is a written instrument prepared by the Engineer and signed by the Owner, Contractor, and Engineer, stating their agreement upon all of the following:
- .1 change in the Work;
 - .2 the amount of the adjustment, if any, in the Contract Sum; and
 - .3 the extent of the adjustment, if any, in the Contract Time.
- 7.2.2** Methods used in determining adjustments to the Contract Sum may include those listed in Subparagraph 7.3.3.
- 7.2.3** With each proposal for a change in the Scope of Work, the Contractor will submit an itemized breakdown of all increases or decreases in the cost of the Contractor's and all Subcontractor's work to include the following detail in the order listed:
- .1 material quantities and unit costs.
 - .2 labor amounts and hourly rates, (identified with specific items of material to be placed or operation to be performed).
 - .3 Labor Burden, including specific entries for Workman's Compensation Insurance, employee benefits, and employment taxes (Federal and State). The Labor Burden total will not exceed 46% of labor amounts. Exceptions can be made to this 46% limitation on a case by case basis. To request exceptions to the Contractor must submit detailed justification showing the elements of cost that would cause the labor burden to exceed 46%. The Engineer will review this justification for accuracy and reasonableness and notify the Owner, in writing, regarding the Engineer's recommendation concerning labor burdens above 46%.
 - .4 equipment costs, if any, (cars and pick-up trucks will not be included as equipment).
 - .5 bonds and Public Liability Insurance.
 - .6 do not include State Gross Receipts Tax. It will be computed with each pay application.
 - .7 overhead and profit.
- 7.2.4** Overhead and profit on Change Orders shall be applied as follows:
- .1 the overhead and profit charged by the Contractor shall be considered to include, but not limited to, performance bond, builder's risk and public liability insurance, job site office expense, normal hand tools, incidental job supervision, field supervision, company benefits, and general office overhead. The percentages for overhead and profit charged on Change Orders shall be negotiated and may

vary according to the nature, extent, and complexity of the Work involved but in no case shall exceed the following:

Subtotal before applying overhead and profit:	Under \$500	\$500 to \$5,000	\$5,000 to \$25,000	Over \$25,000
Contractor (for work performed by his own forces):	Maximum: 28.00%	Maximum: 21.00%	Maximum: 15.75%	Maximum: 11.81%
Subcontractor (for work performed by his own forces):	Maximum: 22.40%	Maximum: 16.80%	Maximum: 12.60%	Maximum: 09.44%
Contractor (for work performed by Subcontractor):	Maximum: 11.20%	Maximum: 08.40%	Maximum: 06.30%	Maximum: 04.72%

Not more than three mark-ups, not to exceed individual maximums shown above, shall be allowed regardless of the number of tier subcontractors. Overhead and profit shall be shown separately for each Subcontractor of any tier and the Contractor.

- .2 on proposals covering both increases and decreases in the amount of the Contract, the application of overhead and profit shall be on the net change in direct cost for the Contractor and Subcontractor of any tier performing the Work.
- .3 the percentages for overhead and profit credit to the Owner on Change Orders that are strictly decreases in the quantity of work or materials shall be negotiated and may vary according to the nature, extent, and complexity of the Work involved, but shall not be less than the following:
Overhead and Profit: 10% credit to the Owner from the Contractor or Subcontractor of any tier for Work performed with their respective forces or materials purchased. 5% credit to the Owner from the Contractor on Work performed by other than his forces. 5% credit to the Owner from the first tier Subcontractor on Work performed by his Subcontractor of any tier.
- .4 if there is additional time granted in a Change Order, it strictly applies toward liquidated damages. No additional money can be charged for overhead for time extensions.
- .5 no overhead or profit will be allowed on FICA or FUTA taxes.

7.3 CONSTRUCTION CHANGE DIRECTIVES

- 7.3.1** A Construction Change Directive is a written order prepared by the Engineer and signed by the Owner and Engineer, directing a change in the Work prior to agreement or adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.
- 7.3.2** A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.
- 7.3.3** If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
 - .1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation as outlined in 7.2.3.

- .2 unit prices stated in the Contract Documents or subsequently agreed upon.
- .3 cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee, or
- .4 as provided in Subparagraph 7.3.6.

7.3.4 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Engineer of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

7.3.5 A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith including adjustment in the Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

7.3.6 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Engineer on the change, including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, and also under Clause 7.3.3, the Contractor shall keep and present, in such form as the Engineer may prescribe, an itemized accounting together, with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Subparagraph 7.3.6 shall be limited to the following:

- .1 costs of labor, including social security, old age, and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed.
- .3 rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others.
- .4 costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
- .5 additional costs of supervision and field office personnel directly attributable to the change.

7.3.7 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that result in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Engineer. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

7.3.8 Pending final determination of the total cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such cost that remains in dispute, the Engineer will make an interim determination for purposes of monthly certification for payment for those costs. That determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a claim in accordance with Article 4.

7.3.9 When the Owner and Contractor agree with the determination made by the Engineer concerning the adjustments in the Contract Sum and Contract Time; or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.

7.4 CONTRACTOR COMPLIANCE WITH THE CHANGE ORDER PROCESS

7.4.1 The Contractor shall provide Change Order Pricing and backup in a timely manner. No claim for an addition to the Contract Sum will be valid unless authorized in writing by the Owner.

7.4.2 No changes or additions to the work to be performed, materials to be furnished, or in the provisions of the Contract will be authorized until execution and delivery by the Owner to the Contractor of the written Change Order. Any work completed by the Contractor outside the original project scope without written approval from the Owner will be deemed as a waiver by the Contractor for additional compensation for said work.

7.5 MINOR CHANGES TO THE WORK

7.5.1 The Engineer will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

ARTICLE 8: TIME

8.1 DEFINITIONS

- 8.1.1** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.
- 8.1.2** The date of commencement of the Work is the date established in the Agreement. The date shall not be postponed by the failure of the Contractor or of persons or entities for whom the Contractor is responsible.
- 8.1.3** The date of Substantial Completion is the date certified by the Engineer and the Owner in accordance with paragraph 9.8.
- 8.1.4** The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.
- 8.1.5** The date of Final Completion is the date certified by the Engineer and the Owner in accordance with paragraph 9.10.

8.2 PROGRESS AND COMPLETION

- 8.2.1** Time limits stated in the Contract Documents are the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- 8.2.2** The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work will not be changed by the effective date of such insurance. Unless the date of commencement is established by a notice to proceed given by the Owner, the Contractor shall notify the Owner in writing not less than five days or other agreed period before commencing the Work to permit the timely filing of mortgages, mechanic's liens and other security interests.
- 8.2.3** The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.
- 8.2.4** The Owner shall not be liable to the Contractor if the Contractor submits a progress report or any construction schedule expressing an intention to achieve completion of the Work prior to the Contract Time. No liability on the part of the Owner shall be created or implied for failure of the Contractor to so complete the Work.

8.3 DELAYS AND EXTENSIONS OF TIME

- 8.3.1** If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Engineer, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Owner pending mediation and arbitration, or by other causes which the Engineer and the Owner determines may justify delay, then the Contract Time may be extended by Change Order for such reasonable time as the Engineer and the Owner may determine.
- 8.3.2** Claims relating to time shall be made in accordance with applicable provisions of Paragraph 4.3 and the applicable provisions of Paragraph 7.3.

8.4 CONTRACT TIME AND LIQUIDATED DAMAGES

- 8.4.1** The Contractor agrees that the Work will be prosecuted regularly, diligently and without interruption at such rate of progress as will ensure completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time is a reasonable time for completion of the Work, taking into consideration the average climate range and usual industrial conditions prevailing in this locality. If the Contractor neglects, fails or refuses to complete the Work within the Contract Time, or any proper extension granted by the Owner, then the Contractor agrees to pay to the Owner the amount specified in the Contract Documents, not as a penalty, but as liquidated damages.
- 8.4.2** The parties agree that the amount of the likely damage to the Owner for such delay is difficult to ascertain at the time of execution of this agreement, but that a reasonable estimate of such damages for delay is set forth in the Contract Documents. Liquidated damages may be deducted from any monthly progress payments due to the Contractor or from other moneys being withheld from the Contractor.
- 8.4.3** The Contractor and Surety are liable for any other liquidated damages over and above moneys held by the Owner.

ARTICLE 9: PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

- 9.1.1** The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.
- 9.1.2** The Owner may withhold any payments to the Contractor if the Contractor fails to perform any of its obligations or is in default under any of the Contract Documents identified in Paragraph 9.5; provided, however, that any payments withheld will be limited to an amount sufficient to cure any default or failure of performance by the Contractor or as liquidated damages pursuant to paragraph 8.4.1.

9.2 SCHEDULE OF VALUES

- 9.2.1** Before the first Application for Payment, the Contractor shall submit to the Engineer and the Owner a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Engineer and Owner may require. This schedule, upon acceptance by the Engineer and the Owner shall be used as a basis for reviewing the Contractor's Applications for Payment. No Applications for Payment will be processed until the schedule of values is received and approved by the Engineer and the Owner.
- 9.2.2** The Owner will assign a dollar value to a line item in the schedule of values for "Contract Closeout". It will represent the estimated value of costs associated with closeout procedures, including but not limited to, preparation and delivery of project record drawings, warranties, affidavits of training sessions in the use of building equipment, operation and maintenance manuals, certification of compliance with final commissioning reports; certification of conformity to final testing and balancing of air-handling systems, and delivery of all close-out documentation.

9.3 APPLICATION FOR PAYMENT

- 9.3.1** By the date established as the end of each progress payment period, the Contractor shall submit to the Engineer and the Owner an itemized Application for Payment completed in accordance with the schedule of values and accompanied by the Owner's Certificate for Payment form. The Application for Payment shall be notarized, and supported by such data substantiating the Contractor's right to payment as the Owner or Engineer may require, such as copies of requisitions from Subcontractors and material suppliers. The XP-214 – Compliance with Labor Standards shall be submitted with the notarized Application for Payment.
- 9.3.1.1** As provided in Subparagraph 7.3.8 such applications may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives, or by interim determinations of the Engineer or the Owner, but not yet included in Change Orders.
- 9.3.1.2** Such applications may not include requests for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier unless such Work has been performed by others whom the Contractor intends to pay.
- 9.3.1.3** The Owner will pay 100% of the amount due the Contractor for progress payments less those amounts identified through the procedures in Paragraph 9.1.2 and in accordance with the requirements of the Prompt Payment Act.
- 9.3.2** Unless otherwise provided in the Contract Documents, payments shall be made for materials and equipment delivered and suitably stored at the site for incorporation in the Work. Any payments for such

materials or equipment shall be conditioned upon the Contractor's demonstrating that they are adequately protected from weather, damage, vandalism and theft and that such materials or equipment have been inventoried and stored in accordance with procedures established by or approved by the Owner. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a secure location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

- 9.3.3** The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

9.4 CERTIFICATE FOR PAYMENT

- 9.4.1** The Engineer and the Owner, within seven days after receipt of the Contractor's Application for Payment, will issue a Certificate for Payment to the Contractor, for such amount as the Engineer and the Owner determines is properly due, or notify the Contractor in writing of the reasons for withholding certification in whole or in part as provided in Subparagraph 9.5.1.

- 9.4.2** The issuance of a Certificate for Payment will constitute a representation by the Engineer to the Owner, that the Work has progressed to the point indicated and that, to the best of the Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Engineer. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified.

- 9.4.3** The Owner will issue payment to the Contractor in the amount certified in the approved Certificate for Payment within twenty-one (21) days from the end of the progress payment period. This period is inclusive of the time for review of the Application for Payment specified in paragraph 9.4.1.

9.5 DECISIONS TO WITHHOLD CERTIFICATION

- 9.5.1** The Engineer or Owner may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if the representations to the Owner required by Subparagraph 9.4.2 cannot be made. If the Contractor and Engineer and Owner cannot agree on a revised amount, the Engineer will promptly issue a Certificate for Payment for the amount for which the Engineer is able to make such representations to the Owner. The Engineer may also withhold a Certificate for Payment or, because of subsequently discovered evidence or subsequent observations, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Engineer's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Subparagraph 3.3.2, because of:

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or another contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 persistent failure to carry out the Work in accordance with the Contract Documents.
- .8 disputed certification amounts shall be subject to the provisions of the Prompt Payment Act

9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

9.6 PROGRESS PAYMENTS

- 9.6.1** After the Engineer has issued a certificate for payment and the Owner has independently verified the information and approved the certificate for payment, the Owner will make payment in the manner and within the time provided in the Contract Documents.
- 9.6.2** The Contractor shall pay each Subcontractor, upon receipt of payment from the Owner, the amount to which each Subcontractor is entitled in conformance with paragraph 9.3.1.4. The Contractor shall require each Subcontractor to make payments to Sub-subcontractors in a similar manner.
- 9.6.3** The Engineer will, on request, furnish to a Subcontractor information regarding percentages of completion or amounts applied for by the Contractor and action taken by the Engineer and Owner on account of portions of the Work done by such Subcontractor.
- 9.6.4** Neither the Owner nor Engineer shall have an obligation to pay or to see to the payment of moneys to a Subcontractor except as may otherwise be required by law.
- 9.6.5** Payment to material suppliers shall be treated in a manner similar to that provided in Subparagraphs 9.6.2, 9.6.3, and 9.6.4.
- 9.6.6** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.7 FAILURE OF PAYMENT

- 9.7.1** If the Owner does not pay the Contractor the amount approved by the Engineer and the Owner, within thirty (30) days from the date specified in paragraph 9.4.3, then the Contractor may, upon written notice to the Owner and Engineer, stop the Work until payment of such amount has been received. Unless Contractor's action was improper or if the amount claimed is shown not to have been due, the Contract Time may be adjusted appropriately and the Contract Sum may be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, which will be accomplished as provided in Article 7. Contractor will nevertheless be liable to Owner for loss, damage, or expense caused by any wrongful stop-work by the Contractor.

9.8 SUBSTANTIAL COMPLETION

- 9.8.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents and when all required occupancy permits, if any, have been issued so the Owner can occupy and utilize the Work for its intended use. The Contractor will secure and deliver to the Owner written warranties and guarantees from its Subcontractors, Sub-subcontractors and suppliers bearing the date of Substantial Completion or some other date as may be agreed to by the Owner and stating the period of warranty as required by the

Contract Documents. The Contractor is responsible for the warranty of all Work, whether performed by it or by its Subcontractors at any tier. The Contractor will also participate in a walk-through of the project within one year after Substantial Completion.

- 9.8.2** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Engineer and the Owner a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- 9.8.3** Upon receipt of the Contractor's list, the Engineer and the Owner will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If inspection by the Engineer or the Owner discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the requirements of the Contract, the Contractor shall complete or correct such item. In such case, the Contractor shall then submit a request for another inspection by the Engineer and the Owner to determine Substantial Completion.
- 9.8.4** When the Work or designated portion thereof is substantially complete, the Engineer will notify the Owner, and unless Owner disagrees with Engineer's opinion that Substantial Completion has been reached, the Engineer will prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall establish the responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall furnish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- 9.8.4.1** Owner may withhold approval of a Certificate of Substantial Completion of the Work until building commissioning is successfully completed.

9.9 PARTIAL OCCUPANCY OR USE

- 9.9.1** The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Clause 11.4.1.5 and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Engineer and the Owner as provided under Subparagraph 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor.
- 9.9.2** Immediately prior to such partial occupancy or use, the Owner, Contractor and Engineer shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- 9.9.3** Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

9.10 FINAL COMPLETION AND FINAL PAYMENT

- 9.10.1** Upon receipt of written notice from the Contractor that the Work is ready for final inspection and acceptance, the Engineer and the Owner will promptly make such inspection and, when the Engineer and the Owner finds the Work acceptable under the Contract Documents and the Contract fully performed, the Engineer will notify the Owner, and unless the Owner disagrees with the Engineer's opinion that Final Completion has been reached, the Engineer will promptly issue a final Certificate for Payment stating that to the best of the Engineer's knowledge, information and belief and on the basis of

the Engineer's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Engineer's final Certificate for Payment will constitute a further representation that conditions listed in Subparagraph 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

9.10.1.1 Final Completion of the Work shall be accomplished no later than fourteen (14) days following Substantial Completion except as noted in paragraph 9.10.3.

9.10.1.2 If Final Completion is not accomplished fourteen (14) days after Substantial Completion, the Contractor will pay an amount specified in the Contract Documents, not as a penalty, but as liquidated damages for Final Completion until such time as Final Completion is accomplished and the conditions of paragraph 9.10.1 and 9.10.2 are met. This provision is subject to the conditions noted in paragraph 9.10.3.

9.10.2 Final payments shall not become due until the Contractor submits to the Engineer and the Owner (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner), have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, to final payment, (5) other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by Owner, and (6) other closeout requirements noted in paragraph 9.2.2. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.10.3 If, after Substantial Completion of the Work, final completion is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, the Owner shall, upon application by the Contractor and certification by the Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Engineer prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

- 10.1.1** The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.
- 10.1.2** The Contractor shall at all times conduct operations under this Contract in a manner to avoid risk of bodily harm to persons or risk of damage to any property. The Contractor shall promptly take precautions, which are necessary and adequate against conditions created during the progress of the Work which involve a risk of bodily harm to persons or a risk of damage to property. The Contractor shall continuously inspect the Work, materials and equipment to discover and determine any such conditions and shall be responsible for discovery, determination and correction of such conditions. The Contractor shall comply and shall cause its Subcontractors and others on the Project site to comply with applicable safety laws, standards, codes and regulations of the jurisdiction in which the Project is located.

10.2 SAFETY OF PERSONS AND PROPERTY

- 10.2.1** The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to:
- .1 employees on the Work and other persons who may be affected hereby;
 - .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
 - .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.
 - .4 students, staff, faculty, visitors, and members of the general public on or in the vicinity of the City of Aztec property or facilities.
- 10.2.2** The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.
- 10.2.3** The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.
- 10.2.4** When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.
- 10.2.5** The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Paragraph 10.2 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible, except damage or loss attributable solely to acts or omissions of the Owner or Engineer or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations stated elsewhere in the Contract Documents.
- 10.2.6** The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Engineer.

- 10.2.7** The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.
- 10.2.8** The Contractor shall promptly report in writing to the Owner and the Engineer all accidents arising out of or in connection with the Work which cause lost time injury, personal injury, death or property damage, giving full details and statements of any witnesses. In cases of serious bodily injury, death or serious property damage, Contractor shall also contact Owner and Engineer immediately by the most expeditious means.
- 10.2.9** The Contractor shall promptly notify the Owner and the Engineer in writing of any claims received by the Contractor for personal injury or property damage related to the Work.
- 10.3 HAZARDOUS MATERIALS**
- 10.3.1** If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance known by the Contractor to be hazardous, including but not limited to asbestos, ~~or~~ polychlorinated biphenyl (PCB), or other substances listed by the EPA as hazardous, encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area, take steps to contain spread of the material and immediately report the condition to the Owner and Engineer in writing.
- 10.3.2** The Owner shall obtain the services of an agency certified to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. The Owner shall, at its own expense, employ persons to render material encountered on the Site harmless. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. The Contract Time and the Contract Sum shall be adjusted as provided in Article 7. "Rendered Harmless" shall mean that the levels of such materials are less than any applicable exposure standards set forth in OSHA or EPA regulations.
- 10.4** The Owner shall not be responsible under Paragraph 10.3 for materials and substances brought to the site by the Contractor.
- 10.5** If, without negligence on the part of the Contractor, the Contractor is held liable for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Document, the Contract shall be adjusted in accordance with Article 7.
- 10.6 EMERGENCIES**
- 10.6.1** In an emergency affecting safety of persons or property, the Contractor shall use its best efforts to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Paragraph 4.3 and Article 7.

ARTICLE 11: INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to transact insurance in New Mexico such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 claims under workers' compensation, disability benefit and other similar employee benefit acts, which are applicable to the Work to be performed;
- .2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 claims for damages, other than to the Work itself, because of damage to or destruction of tangible property, including loss of use resulting there from;
- .5 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;
- .6 claims for bodily injury or property damage arising out of completed operations; and,
- .7 claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.

11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of liability specified herein or required by law, whichever coverage is greater. Coverage's shall be written on an occurrence basis and shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.

11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates and the insurance policies required by this Paragraph 11.1 shall contain a provision that coverage's afforded under the policies will not be canceled or allowed to expire until at least 45 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverage's are required to remain in force after final payment, and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2. The Contractor shall furnish information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, with reasonable promptness.

11.1.3.1 The Contractor will furnish the Owner one copy of each of the Certificates of Insurance herein required for each copy of the Contract, showing the coverage's, limits of liability, covered operations, effective dates and dates of expiration of policies of Insurance carried by the Contractor. The Contractor will furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits. The Certificates of Insurance will be in the form of AIA Document G705, or similar format acceptable to the Owner. Such certificates will be filed with the Owner and will also contain the following statements:

- .1 "the City of Aztec, its agents, servants and employees are recognized as Additionally Insured."
- .2 "the insurance coverage certified herein will not be canceled or materially changed except after forty-five (45) calendar days written notice has been provided to the Owner."
- .3 "the insured will not violate, or permit to be violated, any conditions of this policy, and will at all times satisfy the requirements of the insurance copy transacting the policy."

11.1.4 Minimum Required Coverage's:

11.1.4.1 Compensation Insurance: During the life of this Contract the Contractor will procure and will maintain Worker's Compensation Insurance as required by applicable State law for all of the Contractor's employees to be engaged at the site of the Project under this Contract and in case of any such work being sublet, the Contractor will require the Subcontractor or Sub-subcontractor similarly to provide Worker's Compensation Insurance for all of the Subcontractor's or Sub-subcontractor's employees which are not covered under the Contractor's Worker's Compensation Insurance. In case any class of employee engaged in work on the Project under this Contract is not protected under the Worker's Compensation Statute, the Contractor will provide and will cause each Subcontractor and Sub-subcontractor to provide Employer's Insurance in an amount not less than \$1,000,000.

11.1.4.2 Contractor's Public Liability Insurance: The Contractor will maintain liability insurance coverage equal to the maximum liability amounts set forth in the New Mexico Tort Claims Act, Section 41-4-1 et seq. NMSA 1978, as it now exists or may be amended. Limits will be \$1,000,000.00.

11.1.4.3 Comprehensive Vehicle Liability: During the life of this Contract, including any extensions to same, the Contractor will procure and will maintain Vehicle Liability Insurance providing limits of liability not less than the following:

TYPE: LIMIT OF LIABILITY:

Bodily Injury	\$1,000,000 Each Occurrence
Property Damage	\$1,000,000 Each Occurrence

11.1.4.4 Subcontractor's and Sub-subcontractor's Public Liability and Vehicle Liability Insurance: The Contractor will either:

- (a) Require each Subcontractor and Sub-subcontractor to procure and maintain during the life of the Subcontract or Sub-subcontract, Public Liability Insurance of the types and amounts specified above, or
- (b) Insure the activities of the Subcontractor and Sub-subcontractor in the Contractor's policy as required under this Article.

11.2 OWNER'S LIABILITY INSURANCE

11.2.1 The Owner shall be responsible for purchasing and maintaining the Owner's liability insurance.

11.3 PROJECT MANAGEMENT PROTECTIVE LIABILITY INSURANCE

11.3.1 Optionally, the Owner may require the Contractor to purchase and maintain Project Management Protective Liability insurance from the Contractor's usual sources as primary coverage for the Owner's, Contractor's and Engineer's vicarious liability for construction operations under the Contract. Unless otherwise required by the Contract Documents, the Owner shall reimburse the Contractor by increasing the Contract Sum to pay the cost of purchasing and maintaining such optional insurance coverage, and the Contractor shall not be responsible for purchasing any other liability insurance on behalf of the Owner. The minimum limits of liability purchased with such coverage shall be equal to the aggregate of the limits required for Contractor's Liability Insurance under paragraphs 11.1 through 11.1.4.4.

11.3.2 To the extent damages are covered by Project Management Protective Liability insurance, the Owner, Contractor and Engineer waive all rights against each other for damages, except such rights as they may have to the proceeds of such insurance. The policy shall provide for such waivers of subrogation by endorsement or otherwise.

11.4 PROPERTY INSURANCE

- 11.4.1** The Owner will provide property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Paragraph 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph 11.4 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.
- 11.4.2** The Builder's Risk coverage to be furnished by the Owner is provided under the State of New Mexico's Blanket Property Coverage Policy, a copy of which is available for your perusal at the Purchasing Office of the City of Aztec.
- 11.4.3** The policy does not insure for theft of any building materials or supplies. Nor is there coverage provided for Contractor's, Subcontractor's or Sub-subcontractor's tools, machinery, or equipment. Any loss resulting there from will be borne by the Contractor incurring the loss.
- 11.4.4** The Contractor will be responsible for the first deductible amount of any insured loss.
- 11.4.5** If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverage's in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then affect insurance, which will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order, the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.
- 11.4.6** Partial occupancy or use in accordance with Paragraph 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.
- 11.4.7** **Loss of Use Insurance:** The Owner may provide such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused.
- 11.4.8** **Waivers of Subrogation:** The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Engineer, Engineer's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Paragraph 11.4 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner. The Owner or Contractor, as appropriate, shall require of the Engineer, Engineer's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsements or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.
- 11.4.9** A loss insured under Owner's property insurance shall be adjusted by the Owner and made payable to the Owner for the insureds, as their interests may appear, subject to requirements of any applicable mortgage clause and of Subparagraph 11.4.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

11.4.10 Cost of required bonds shall be charged against proceeds received. Proceeds so received, shall be distributed by the Owner in accordance with such agreement as the parties in interest may reach, or in accordance with an arbitration award in which case the procedure shall be as provided in paragraph 4.5 and 4.6. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

11.4.11 The Owner shall have power to adjust and settle a loss with insurers.

11.5 PERFORMANCE BOND AND PAYMENT BOND

11.5.1 As required by law, the Owner requires the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

11.5.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligation arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

ARTICLE 12: UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

12.1.1 No work shall be covered until the Engineer and Owner have been given written notice and have had the opportunity to examine the Work.

12.1.2 If a portion of the Work is covered contrary to the Engineer's or Owner's request or to requirements specifically expressed in the Contract Documents, it must be uncovered for the Engineer's and Owner's examination and be replaced at the Contractor's expense without change in the Contract Time.

12.1.3 If a portion of the Work has been covered which the Engineer or Owner has not specifically requested to examine prior to its being covered, the Engineer or Owner may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, uncovering, correction and replacement shall be at the Contractor's expense. If the non-compliant condition was caused by the Owner, the Owner shall be responsible for payment of such costs.

12.2 CORRECTION OF WORK

12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

12.2.1.1 The Contractor shall promptly correct Work rejected by the Engineer or Owner or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting rejected Work, including additional testing and inspections and compensation for the Engineer's services and expenses shall be at the Contractor's expense.

12.2.2 AFTER SUBSTANTIAL COMPLETION

12.2.2.1 In addition to the Contractor's obligations under Paragraph 3.6, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Subparagraph 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner or Engineer to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner or Engineer shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within the time established in Paragraph 2.4 the Owner may correct the Work in accordance with Paragraph 2.4.

12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and Acceptance of the Work.

12.2.2.3 Corrected nonconforming Work shall have a new one-year period for correction, starting when the corrected Work has been accepted by the Owner.

12.2.3 The Contractor shall remove from the site portions of the Work, which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

- 12.2.4** The Contractor shall bear the cost of correcting damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.
- 12.2.5** Nothing contained in this Paragraph 12.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the one-year period for correction of Work as described in Subparagraph 12.2.2 related only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.3 ACCEPTANCE OF NONCONFORMING WORK

- 12.3.1** If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be adjusted as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13: MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

13.1.1 The Contract shall be governed by the laws of the State of New Mexico.

13.2 SUCCESSORS AND ASSIGNS

13.2.1 The Contractor hereby binds itself, its partners, successors, assigns and legal representatives to the Owner in respect to covenants, agreements and obligations contained in the Contract Documents. Contractor shall not assign the Contract or proceeds hereof without written consent of the Owner. If contractor attempts to make such an assignment without such consent, it shall be void and confer no rights on third parties; the Contractor shall nevertheless remain legally responsible for all obligations under the Contract. The Owner's consent to any assignment is conditioned upon Contractors entering into a written assignment which contains the following language: "it is agreed that the funds to be paid to the assignee under this assignment are subject to performance by the Contractor and to claims and to liens for services rendered or materials supplied for the performance of the Work required in said Contract in favor of all persons, firms, corporations rendering such services or supplying such materials." Except as provided in Subparagraph 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such as assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.2.2 The Owner may, without consent of the Contractor, assign the contract to an institutional lender providing construction financing for the Project. In such event, the lender shall assume the Owner's rights and obligations under the Contract Document. The Contractor shall execute all consents reasonably required to facilitate such assignment.

13.3 WRITTEN NOTICE

13.3.1 All notices required to be given by the Contractor shall be made in writing. Written notice, when served by the Owner, shall be considered served if delivered in person to the Contractor, or delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4 RIGHTS AND REMEDIES

13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available there under shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

13.4.2 No Action or failure to act by the Owner, Engineer or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.4.3 Contractor shall carry out the work and adhere to the current construction schedule during all disputes or disagreements with the Owner. No work shall be delayed or postponed pending resolution of any disputes or disagreements except as the Owner may otherwise agree in writing.

13.4.4 Contractor shall specifically incorporate the obligations of this Article 13 into the subcontracts, supply agreements and purchase orders for the Work and require the same of any Subcontractors of any tier.

13.5 TEST AND INSPECTIONS

- 13.5.1** Test, inspections and approval of portions of the Work required by the Contract Document or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with the Owner's designated testing entity. The Contractor shall give the Owner and the Engineer timely notice of when and where tests and inspections are to be made so that the Owner and the Engineer may observe such procedures. The Owner shall bear cost of tests, inspections or approvals.
- 13.5.2** If the Engineer, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Subparagraph 13.5.1, the Engineer or the Owner will instruct the Contractor to make arrangements for such additional testing, inspection or approval by the Owner's independent testing entity, and the Contractor shall give timely notice to the Owner and the Engineer of when and where tests and inspections are to be made so that the Owner and the Engineer may observe such procedures. Such cost, except as provided in Subparagraph 13.5.3, shall be at the Owner's expense.
- 13.5.3** If such procedures for testing, inspection or approval under Subparagraph 13.5.1 and 13.5.2 reveal failure of the portions of Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Engineer's services and expenses shall be at the Contractor's expense.
- 13.5.4** Required certificates of testing, inspections or approvals shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner and the Engineer.
- 13.5.5** If the Engineer or the Owner are to observe test, inspections or approvals required by the Contract Documents, the Engineer or Owner will do so and, where practicable, at the normal place of testing.
- 13.5.6** Test or inspections conducted pursuant to the Contract Documents shall be made to avoid unreasonable delay in the Work.
- 13.5.7** Payments due and unpaid under the Contract Document shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located and in conformance with New Mexico statutes.

13.6 COMMENCEMENT OF STATUTORY LIMITATION PERIOD

13.6.1 As between the Owner and Contractor

- 13.7.1.1 Before Substantial Completion:** As to acts or failures to act occurring prior to the relevant date of Substantial Completion, as described in Subparagraph 9.8.1, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;
- 13.7.1.2 Between Substantial Completion and final Certificate for Payment:** As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and
- 13.7.1.3 After Final Certificate for Payment:** As to acts or failures to act occurring after the relevant date of issuance of the Final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to and Warrant provided under Paragraph 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Paragraph 12.2, or the date of

actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

- 13.7.1.4 Equal Employment Opportunity:** The Contractor agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or sexual preference, in accordance with U.S. Executive Order 11246, as amended, and N.M. Executive Order 85-15. If the Contract constitutes a federally assisted construction contract within the meaning of 41 C.F.R. 60-1.3 (1987), then the equal opportunity clause of 41 C.F.R. 60-1.4 (b) is incorporated herein by reference.

13.8 WAGE RATES

- 13.8.1 Minimum Wage:** Minimum wages will be paid as determined by the Secretary of Labor, U.S. Department of Labor, Washington, D.C. 20210, or as determined by the Office of the Labor Commissioner, State of New Mexico, Santa Fe, New Mexico, as following hereinafter. The minimum wages to be paid on the project will be the higher of the Wage Determinations for each class of laborers and mechanics. All rules and regulations pursuant to State and/or Federal Labor Laws will apply to this work.

- 13.8.2 Payment of Employees and Weekly Payrolls:** Attention of bidders is called to the fact that minimum wage rates to be paid various classes of laborers and mechanics, if based upon wages determined by the State Labor Commission, will be in accordance with the 6-6-6 N.M.S.A. 1953 Compilation.

13.8.2.1 Following public hearings, the rule on submission of payrolls, contained in Paragraph 4 of Part II, reads as follows: "The contractual provision will require that the Contractor and each Subcontractor will deliver or mail copies of the certified weekly payrolls, prepared in accordance with these regulations, to the Office of the Labor Commission, no more than five working days following the close of the Payroll Period." It is further stated that such payrolls will depict the decision number for this Project and the County in which the work is being performed.

13.8.2.2 The scale of wages to be paid will be posted by the Contractor in a prominent and easily accessible place at the job site. Public works construction projects, except for street, highway, bridge, road, utility or maintenance contracts with employers who elect not to participate in training, will not be constructed unless an employer agrees to make contribution to approved apprentice and training programs in New Mexico in which the employer is a participant, or to the public works apprentice and training program fund administered by the Public Works Bureau of Labor and Industrial Division of the Labor Department. Contributions will be made in the same manner and in the same amount as apprentice and training contributions required pursuant to wage rate determinations made by the Department of Labor.

13.9 RECORDS

- 13.9.1** The Owner shall have access to and the right to examine any accounting or other records of the Contractor involving transactions and Work related to this Contract for five (5) years after final payment or five (5) years after the final resolution of any ongoing disputes at the time of final payment. All records shall be maintained in accordance with generally accepted accounting procedures, consistently applied. Subcontractors of any tier shall be required by Contractor to maintain records and to permit audits as required of Contractors herein.

13.10 MISCELLANEOUS GENERAL PROVISIONS

- 13.10.1** Any specific requirement in this Contract that the responsibilities or obligations of the Contractor also apply to a Subcontractor is added for emphasis and are also hereby deemed to include a Subcontractor of any tier. The omission of a reference to a Subcontractor in connection with any of the Contractor's

responsibilities or obligation shall not be construed to diminish, abrogate or limit any responsibilities or obligations of a Subcontractor of any tier under the Contract Documents or the applicable subcontract.

- 13.10.2** This Contract shall be interpreted, construed, enforced and regulated under and by the laws of the State of New Mexico. Whenever possible, each provision of this Contract shall be interpreted in a manner as to be effective and valid under applicable law. If, however, any provision of this Contract, or a portion thereof, is prohibited by law or found invalid under any law, only such provision or portion thereof shall be ineffective, without invalidating or affecting the remaining provisions of this Contract or valid portions of such provision, which are hereby deemed severable. Contractor and Owner further agree that in the event any provision of this Contract, or a portion thereof, is prohibited by law or found invalid under any law, this Contract shall be reformed to replace such prohibited or invalid provisions or portion thereof with a valid and enforceable provision which comes as close as possible to expressing the intention of the prohibited or invalid provision.
- 13.10.3** Contractor and Owner each agree that the State of New Mexico District Court of the County where the Project is located shall have exclusive jurisdiction to resolve all Claims and any issue and disputes between Contractor and Owner. Contractor agrees that it shall not file any petition, complaints, lawsuit or legal proceedings against Owner in any other court other than the State of New Mexico District Court for the County where the Project is located.
- 13.10.4** Owner's total liability to Contractor and anyone claiming by, through, or under Contractor for any Claim, cost, loss, expense or damage caused in part by the fault of Owner and in part by the fault of contractor or any other entity or individual shall not exceed the percentage share that Owner's fault bears to the total fault of Owner, Contractor and all other entities and individuals as determined on the basis of comparative fault principles.
- 13.10.5** Contractor agrees that Owner shall not be liable to Contractor for any special, indirect, incidental, or consequential damage whatsoever, whether caused by Owner's negligence, fault, errors or omissions, strict liability, breach of contract, breach of warranty or other cause or causes whatsoever. Such special, indirect, incidental or consequential damages include, but are not limited to loss of profits, loss of savings or revenue, loss of anticipated profits, labor inefficiencies, idle equipment, home office overhead, and similar types of damages.
- 13.10.6** Nothing contained in this Contract or the Contract Documents shall create any contractual relationships with or cause of action in favor of a third party against the Owner.
- 13.10.7** No member or officer of City of Aztec incurs or assumes any individual or personal liability under the Contract or by reason of the default of the Owner in the performance of any terms thereof. Contractor releases and discharges all members or officers of the City of Aztec from any liability as a condition of and as consideration for the award of the Contract to Contractor.
- 13.10.8** Owner reserves the right to conduct building commissioning activities during the construction, testing and acceptance phases of the Work.
- 13.10.8.1** If the Owner includes the building commissioning plan, including a building components testing schedule, in the plans and specifications for the Project, Contractor shall include all costs associated with commissioning support in the base bid for the Project and Contractor's schedule shall reflect all time associated with the commissioning plan, including a building component testing schedule, commissioning and commissioning support in Contractor's schedule. The Contractor shall not be entitled to a change in the Contract price or time for Owner's commissioning activities unless, without the fault of or delay by the Contractor or those for whom Contractor is responsible, the commissioning agent fails to conduct the component testing in accordance with the building component testing schedule. Should the Contractor:
- .1 fail to complete component testing checklists in accordance with the commissioning plan;
 - .2 install components or systems in such a manner that they fail to achieve the minimum levels of performance set forth in the commissioning plan; or

.3 fails to provide equipment and other components of systems that do not meet the minimum performance levels required by the specifications or identified in the submittals

Contractor shall not be entitled to any time extension or adjustment of the contract price for correction of such conditions and shall be liable to Owner for any additional costs of commissioning caused by such conditions in addition to any liquidated damages for delay in Project completion.

- 13.10.8.2** If, after entering into the Agreement, the Owner determines that building commissioning shall be required, the Contract shall be modified by Change Order or Construction Change Directive as provided in Article 7.

ARTICLE 14: TERMINATION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

- 14.1.1** The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under contract with the Contractor, for any of the following reasons:
- 14.1.1.1** Issuance of an order of a court or other public authority having jurisdiction, which requires all Work to be stopped;
 - 14.1.1.2** An act of government, such as a declaration of national emergency, which requires all Work to be stopped;
 - 14.1.1.3** The Work is stopped pursuant to Subparagraph 9.7.1.
- 14.1.2** The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Paragraph 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion in any 365-day period, whichever is less. A condition to receiving the payment due under this Subparagraph 14.1.2, Contractor shall execute and deliver to the Owner such documents requested by the Owner, including the legal assignment of Contractor's contractual rights with respect to any Contracts or documents of Contractor pertaining to the Work. In addition, Contractor shall return all drawings, plans, specifications, and other materials pertaining to the Work to the Owner; and will further execute a full release, waiver and assignment of Contractor's rights in interest on a form acceptable to the Owner.
- 14.1.3** If one of the reasons described in Subparagraph 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days written notice to the Owner and Engineer, terminate the Contract and recover from the Owner payment for Work executed and for proven loss with respect to materials, equipment, tools, construction equipment and machinery, including reasonable overhead, profit, and damages.
- 14.1.4** If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has persistently failed to fulfill the Owner's obligations under the Contract Document with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days written notice to the Owner and the Engineer, terminate the Contract and recover from the Owner as provided in Subparagraph 14.1.3.

14.2 TERMINATION BY THE OWNER FOR CAUSE

- 14.2.1** The Owner may terminate the Contract if the Contractor refuses or fails to supply enough properly skilled workers or proper materials.
- 14.2.1.1** Fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors, or otherwise fails to comply with the Prompt Payment Act.
 - 14.2.1.2** Disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; or
 - 14.2.1.3** Disregards the authority of the Owner's Representative or Engineer;
 - 14.2.1.4** Fails to furnish the Owner with assurance satisfactory to the Owner evidencing the Contractor's ability to complete the work in compliance with all the requirements of the Contract Documents.

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- 14.4.2** Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall;
- 14.4.2.1** Cease operations as directed by the Owner in the notice.
 - 14.4.2.2** Take actions necessary, or that the Owner may direct, for the protection and preservation of the Work, and
 - 14.4.2.3** Except for the Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.



NOTICE OF AWARD

TO: _____

PROJECT: 2016-549 SANITARY SEWER INTERCEPTOR IMPROVEMENT

DESCRIPTION: REPLACE SANITARY SEWER INTERCEPTOR LINE

The OWNER has considered the BID submitted by you for the above described WORK in response to its advertisement for Bids dated _____ and information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$ _____ plus NMGR.

You are required by the Information for Bidders to execute the Agreement within **ten (10) days** of the time of receipt of this Notice by you and to furnish any required CONTRACTOR'S PERFORMANCE BOND. Payment BONDS and certificates of insurance within **ten (10) days** from the time of receipt of this Notice by you shall constitute receipt as provided herein.

If you fail to execute the Agreement and to furnish said BONDS and certificates within the specified time from the time of receipt of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your BID BOND or bid guarantee. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER. Dated this

DATED THIS: _____

OWNER: _____

BY: _____

TITLE: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

CONTRACTOR: _____

BY: _____

TITLE: _____

This is the _____ day of _____.



CONSTRUCTION AGREEMENT

Project Title: Sanitary Sewer Interceptor Improvements
Project No: 2016-549
Contract Control No.: 2016-549

THIS AGREEMENT DATED _____ made and entered into by and between the City of Aztec, hereinafter called the "OWNER", and _____. hereinafter called the "CONTRACTOR".

WHEREAS, the City Manager of City of Aztec approved the bid on _____;

WHEREAS, pursuant to the Notice of Award, the Contractor as accepted the award and has submitted the required bonds; and,

WHEREAS, in consideration of the sum of \$_____ plus applicable taxes to be paid by the Owner to the Contractor at the time and in the manner hereinafter provided, the said Contractor has agreed and does hereby agree to furnish design, labor, tools, equipment, and material and to complete in every detail the following:

Sanitary Sewer Interceptor Improvements
Project No. 2016-549
Contract Control No. 2016-549

The OWNER and the "CONTRACTOR" agree as follows:

To perform this contract and construct the work in accordance with the terms and conditions of the Contract Documents as defined in the General Conditions, Article 1 General Provisions and including the following additional Documents:

Affirmative Action Program (applicable only where the OWNER has adopted such a program), and

Project Specifications, referred to in this contract, all of which are incorporated herein and made a part hereof.

Payments to be made by the Owner to the Contractor shall be made in the manner provided for in the General Conditions, Article 9 Payment and Completion and on the basis of the prices set out in the Bid Form.

The bidder agrees the work will be substantially completed **within 305 days** from the date of the Notice to Proceed (whichever date comes first), as may be modified by change order, and work will be completed and ready for final payment **40 days following substantial completion** from the date of the Notice to Proceed, as may be modified by change order.

The bidder agrees liquidated damages will be paid to the Owner for each day beyond substantial completion expiration in the amount of **\$2,000.00 per calendar day** and **\$250.00 per calendar day** for completion of remaining work and readiness for final payment beyond completion expiration date.

That, in the event any of the provisions of the Agreement are violated by the Contractor or by any of his subcontractors, the Owner may serve written notice upon the Contractor and the Surety of its intention to terminate such Contract, such notices to contain the reasons for such intention to terminate the Contract, and unless with ten (10) days after the serving of such notice upon the Contractor such violation shall cease and terminate. In the event of any such termination, the Owner shall immediately serve notice thereof upon the Surety who shall have the right to take over and perform this Agreement, provided, however, that if the Surety does not commence performance thereof within thirty (30) days from the date of the mailing to such Surety of notice of termination, the

Owner may take over the work and prosecute the same to completion of the Agreement for the account and at the expense of the Contractor, and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances, and plant as may be on the site of the work and necessary therefore.

The Contract Documents shall be executed with one (1) original maintained by the City of Aztec City Clerk, and one (1) certified copies, one of which will be distributed to the Contractor.

IN WITNESS whereof the parties have executed this contract.

CONTRACTOR

By: _____
Duly Authorized Signature

By: _____
Printed Name

Title: _____

Date: _____

Signer has read the document and affirms that it true and complete and accurately represents the agreement of the parties

NOTARY PUBLIC SIGNATURE (REQUIRED)

State of New Mexico

County of San Juan

(SEAL) _____
Signature of notarial officer
My commission expires: _____

NM Taxation and Revenue Department
Taxpayer Identification Number

Federal Taxpayer Identification or
Social Security Number

City of Aztec Business License Number

**City of Aztec, Owner
A Municipal Corporation**

By: _____
Title: City Manager

Date: _____

(SEAL)

ATTEST:

City Clerk Karla Sayler CMC

Date

CITY ATTORNEY APPROVED AS TO
FORM:

Larry T. Thrower

Date

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that

_____,
[Here insert the name and address or legal title of the CONTRACTOR]

as Principal, hereinafter called the CONTRACTOR, and

_____,
[Here insert the legal title of the surety]

a corporation organized and existing under and by virtue of the laws of the State of _____ and authorized to do business in the State of New Mexico, hereinafter called the Surety, are held and firmly bound unto City of Aztec, 201 West Chaco, Aztec, New Mexico 87410 as Obligee, hereinafter called the OWNER, in the amount of _____ Dollars (\$ _____), for the payment whereof CONTRACTOR and Surety bind themselves, their heirs, executors, administrators, successors, and assigns jointly and severally firmly by these presents.

WHEREAS, CONTRACTOR has by written agreement dated _____ entered into a contract described as follows: **Sanitary Sewer Interceptor Improvements** which contract is by reference made a part hereof and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if CONTRACTOR shall faithfully perform and complete said contract according to its terms and comply with all requirements of law, then this obligations shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the OWNER.

Whenever the CONTRACTOR shall be, and declared by the OWNER to be, in default under the said contract, the OWNER having performed its obligations hereunder, the Surety may promptly remedy the default or shall promptly:

Complete the contract in accordance with its terms and conditions, or

Obtain a bid or bids for submission to the OWNER for completing said contract in accordance with its terms and conditions and, "upon determination by the OWNER and Surety of the lowest responsible bidder, arrange for a contract between such bidder and the OWNER and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph shall mean: the total amount payable by the OWNER to the CONTRACTOR under said contract and any amendments thereto, less the amount properly paid by the OWNER to the CONTRACTOR.

The Surety acknowledges that said contract may contain express guarantees and agrees that said guarantees, if any, are covered by the Surety's obligation hereunder.

Any suit under this bond must be instituted before the expiration of two years from the date on which final payment under the contract falls due, except that, with respect to express guarantees of a longer term, a suit thereon must be initiated within six months following the expiration of said express guarantees, if any.

Right of action with respect to any express guarantees, if any, in said contract shall accrue following completion and formal acceptance of the work under said contract.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or its successors or assigns.

Venue upon any suit brought upon this bond shall be in the District Court of San Juan County, New Mexico.

Signed and Sealed on: _____, 2016

In Presence of

[Contractor's Principal]

By: _____

Title: _____

Approved as to Form:

Attorney for the Owner

[Surety]

By: _____

Title: _____

Countersigned:

[Surety's Authorized New Mexico Agent]

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, that

_____,
[Here insert the name and address or legal title of the CONTRACTOR]

as Principal, hereinafter called the CONTRACTOR, and

_____,
[Here insert the legal title of the surety]

a corporation organized and existing under and by virtue of the laws of the State of _____ and authorized to do business in the State of New Mexico, hereinafter called the Surety, are held and firmly bound unto City of Aztec, 201 West Chaco, Aztec, New Mexico 87410 as Obligee, hereinafter called the OWNER, in the amount of _____ Dollars (\$ _____), for the payment whereof CONTRACTOR and Surety bind themselves, their heirs, executors, administrators, successors, and assigns jointly and severally firmly by these presents.

WHEREAS, CONTRACTOR has by written agreement dated _____ entered into a contract described as follows: **Sanitary Sewer Interceptor Improvements** which contract is by reference made a part hereof and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that if the CONTRACTOR shall pay as they become due, all just claims for labor performed and materials and supplies furnished upon or for the work under said contract, pursuant to Sections 13-4-18 through 13-4-20 NMSA 1978, whether said labor be performed and materials and supplies be furnished under the original contract or any contract thereunder, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

The right to sue on this bond accrues only to the OWNER and the parties to whom New Mexico Statutes Annotated, 1978, 13-4-18 through 13-4-20, as amended, grant such right; and any such right shall be exercised only in accordance with the provisions and limitations of said statutes.

The Surety, for value received, hereby expressly stipulates and agrees that no change, extension of time, alteration or addition to the terms of the agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect the Surety's obligation on this bond; and the Surety does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this agreement or to the work or specifications.

Venue upon any suit brought upon this bond shall be in the District Court of San Juan County, New Mexico.

This bond is issued simultaneously with another bond conditioned for the full and faithful performance of the contract.

Signed and Sealed on: _____, 2016

In Presence of

[Contractor's Principal]

By: _____

Title: _____

Approved as to Form:

[Surety]

By: _____

Attorney for the Owner

Title: _____

Countersigned:

[Surety's Authorized New Mexico Agent]

This bond is issued simultaneously with performance bond in favor of contracting agency for the faithful performance of the contract.

CERTIFICATE OF LIABILITY INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

PRODUCER	THIS CERTIFICATION IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR/ACORD LTR/INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR <input type="checkbox"/> <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
	EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE \$ RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below OTHER				<input type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

CANCELLATION

	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL _____ DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
	AUTHORIZED REPRESENTATIVE

NOTICE TO PROCEED



TO: _____

PROJECT: 2016-549 SANITARY SEWER INTERCEPTOR IMPROVEMENTS

DATE: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____ on or before _____. You are to substantially complete the WORK within **305 calendar days** thereafter. The date of substantial completion is _____.

Complete work and readiness for final payment is within **40 calendar days**. The date for work completion is _____.

Contractor Construction Schedule is to be submitted to Owner within **5 days** of the Notice to Proceed.

OWNER: CITY OF AZTEC

BY: _____

TITLE: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged

BY: _____

TITLE: _____

DATE: _____

EMPLOYER IDENTIFICATION NO.: _____



Construction Change Directive

PROJECT: (Name and Address)

[]

Change Directive No.:

[]

Change Directive Date:

TO: (Contractor Name and Address)

[]

Contract No.:

[]

Contract Date:

[]

[]

You are hereby directed to make the following change(s) in this Contract:

Proposed Adjustments

1. The proposed basis of adjustment to the Contract Sum or Guaranteed Maximum Price is:

- ☐ Lump Sum ☐ increase ☐ decrease of \$ _____
☐ Unit Price of \$ _____ per _____
☐ As Follows:

2. The Contract Time is proposed to be ☐ adjusted ☐ remain unchanged The proposed adjustment, if any, is an ☐ increase ☐ decrease of _____ working days.

When signed by the State and received by the Contractor, this document becomes effective immediately as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above.

Signature by the Contractor indicates the Contractor's agreement with the proposed adjustments in Contract Sum and Contract Time set forth in this Construction Change Directive.

3. Preparation and execution of an appropriate Change Order will follow.

City

By: _____
 Title: _____
 Date: _____

Contractor

By: _____
 Title: _____
 Date: _____



CONTRACT CHANGE ORDER

Change Order Requested by (OWNER – CONTRACTOR) _____

PROJECT: _____

CHANGE ORDER NO. _____

CONTRACTOR: _____ DATE: _____

ADDRESS: _____ FINANCE OFFICE NO. _____

OWNER: CITY OF AZTEC

ADDRESS: City of Aztec 201 West Chaco, Aztec, New Mexico 87410

REVISED CONTRACT AMOUNT

1. Original Contract Amount.....\$ _____
 2. Total Contract Amount Including Previously Approved Change Orders
(increase and/or deductions)(Including Tax)\$ _____
 3. Amount of This Order (Estimated) or (Firm) (Including Tax)\$ _____
 4. Total Revised Contract Amount to Date (Including Tax)\$ _____
 5. Monetary Basis of Change Order
 - A. Unit Bid Price\$ _____
 - B. Cost Plus _____%\$ _____
(Percentage to be filled in by OWNER)
 6. Original Contract Completion Date _____ calendar days from notice to proceed
 7. New Completion Date Due to this Change Order _____ calendar days from notice to proceed
- (Note: Items 2-5 Incl., to be filled in only if Change Order involves a monetary change.)

REASONS FOR CHANGE ORDER INCLUDING ESTIMATED OR FIRM COST BREAKDOWN (See attached sheets _____ to _____).

The work covered by this order shall be performed under the same terms and conditions as that included in original contract.

CHANGE ORDER ACCEPTED AND APPROVED.

BY _____ DATE _____

CONTRACTOR

CHANGE ORDER RECOMMENDED

BY _____ DATE _____

ENGINEER

CHANGE ORDER APPROVED BY
CITY OF AZTEC
OWNER ON _____

BY: _____
TITLE: _____



CERTIFICATE OF SUBSTANTIAL COMPLETION

Name of Project: Sanitary Sewer Interceptor Improvements

Project #: Bid # 2016-549

Contract Control No: 2016-549

Through this correspondence we are documenting beneficial acceptance of the above referenced project completed substantially in accordance with the plans and specifications on _____.

The City of Aztec will accept full maintenance responsibilities commencing _____, pending completion of warranty work if required, and a final warranty inspection.

PUNCH LIST:

A list of items to be completed or corrected, prepared by the Engineer, checked and augmented as required by the Prime Contractor or Construction Manager is appended hereto. The failure to include any item on such list does not relieve the Contractor of the responsibility to complete all work in accordance with the Contract documents.

The Contractor shall complete or correct the work on the punch list appended hereto by ____/____/____.
The punch list consists of ____ items.

_____ Contractor	_____ Representative	_____ Date
_____ Engineer	_____ Representative	_____ Date
_____ Owner: City of Aztec	_____ Representative	_____ Date

Attachments:
Punch List



RELEASE AND WAIVER OF LIENS

With reference to Contract Control No. **2016-549**, Project No. **2016-549** dated _____, **20**_____, as amended, between the undersigned Contractor _____ and **City of Aztec** for **Sanitary Sewer Interceptor Improvements**, the Contractor hereby certifies that it has made full payment of all costs, charges and expenses incurred by it or on its behalf for work, labor, services, materials and equipment supplied to the foregoing premises or used in connection with its performance under said Contract.

The Contractor further certifies that to its best knowledge and belief, each of its subcontractors and material men has made full payment of all costs, charges and expenses incurred by them or on their behalf for work, labor, services, materials and equipment supplies to the foregoing premises or used by them in connection with said Contract. In consideration of \$ _____ constitutes complete and total payment, the Contractor hereby remises, releases and forever discharges City of Aztec, its premises and property and the Engineer, from all bills, liens and claims of every nature arising out of or in connection with the performance of said Contract and any amendments thereto, except as set forth in the Contractor's Statement Concerning Claims.

The foregoing shall not relieve the Contractor of its obligations under the provisions of said Contract, as amended, which by their nature survive completion of the Work including, without limitation, warranties, guarantees and indemnities.

Executed this _____ day of _____, 20_____.

State of _____

County of _____

Subscribed and Sworn to me this _____ day
of _____, 20_____.

Notary

Notary Commission Expires

Name of Contractor

Signature of Authorized Representative for Contractor

Printed Name

Title



SUBCONTRACTOR'S RELEASE AND WAIVER OF LIENS

THE UNDERSIGNED, for and in consideration of the sum indicated below, the receipt whereof is hereby acknowledged, which is in full/partial payment of all sums due him for work performed and/or materials furnished in connection with the following described project, does hereby waive any right which he may have at this date to file any liens, mechanics, materialmen, or otherwise against said property for or by reason of any work performed or any materials furnished in undersigned affirms that there are no amounts included in this payment for labor or materials furnished by other parties which can become a lien against the described project.

PROJECT: **2016-549 SANITARY SEWER INTERCEPTOR IMPROVEMENTS**

LIEN WAIVER DATE: _____

AMOUNT: _____

() FULL () PARTIAL

TYPE OF WORK AND/OR MATERIAL FURNISHED _____

Executed this _____ day of _____, 20 ____ .

CONTRACTOR

SUBCONTRACTOR

Mailing Address

Mailing Address

Contractor Authorized Representative

Sub-Contractor Authorized Representative

Printed Name

Printed Name

Title

Title

State of _____

County of _____

Subscribed and Sworn to me this _____ day of _____, 20 ____.

Notary My Commission Expires _____



CONTRACTOR'S STATEMENT CONCERNING CLAIMS

For the purpose of obtaining final payment of funds due me for the satisfactory completion of **2016-549 SANITARY SEWER INTERCEPTOR IMPROVEMENTS** in conformity with the contract documents, including the plans and specifications or authorized modifications thereof, I hereby certify that all lawful claims for labor performed and material, supplies and services furnished by me or any sub-contractor for the said work, have been fully paid or satisfied, with the exception of the following claims:

It is requested that final payment of funds due me under the contract be made.

Executed this _____ day of _____, 20____.

State of _____

County of _____

Subscribed and Sworn to me this _____ day
of _____, 20 ____.

Notary _____

Notary Commission Expires _____

Name of Contractor

Signature of Authorized Representative for Contractor

Printed Name

Title

CITY OF AZTEC
STATE OF NEW MEXICO



City of Aztec
Department of Finance Department

INVITES YOUR FIRM TO OFFER A BID ON:

SANITARY SEWER INTERCEPTOR IMPROVEMENTS

AS SPECIFIED IN THE ATTACHED BID DOCUMENTS.

Sealed bids will be received until 3:00 PM Local Mountain Time

By the
City of Aztec
Department of Finance Department
Attention: Kathy Lamb, Finance Director
201 W. Chaco
Aztec, NM 87410
(505) 334-7653
klamb@aztecnm.gov

FIRM NAME

STREET ADDRESS / P.O. BOX

CITY, STATE, ZIP CODE

TELEPHONE NUMBER

E-MAIL ADDRESS

FAX NUMBER

Complete this form as well as the following forms in their entirety as specified in the Instruction to Bidders to ensure that your bid submission is complete.

BID FORM

This Bid is submitted to the City of Aztec, New Mexico (hereinafter called "OWNER").

1. The undersigned (hereinafter called "BIDDER"), in compliance with your invitation for bids for the **Sanitary Sewer Interceptor Improvements** having examined the drawings and specifications, with related documents, and having examined the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of labor, materials and supplies, hereby proposes to furnish all labor, materials and supplies, and to construct the project in accordance with the contract documents at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

2. **BASE BID:** The Bidder agrees to perform all of the following Base Work for the Base Bid amount for the **Sanitary Sewer Interceptor Improvements** determined as follows:

BID ITEM	SPEC NO.	ITEM DESCRIPTION	UNIT	EST. QTY.	UNIT BID PRICE	AMOUNT
1	201.01	SITE CLEARING AND GRUBBING, CIP	AC	1		
2	201.02	TREES, 12"-30" CIRC. R&D, CIP	LS	1		
3	202.011	ROADWAY EXCAVATE & DISPOSE UNSUITABLE MATERIAL, CIP	CY	100		
4	301.7.1	SUBGRADE PREPARATION, 12" @ 95% COMPACTION, CIP	SY	11,160		
5	302.6.2	TYPE 1 - AGGREGATE BASE COURSE 6" THICK, CLASS I	SY	11,160		
6	336.11.2.1.1	ASPHALT CONCRETE PAVEMENT, 3" THICK (1-1/2" TYPE B OVER 1-1/2" TYPE B) MACHINE LAYDOWN, CIP	SY	5,775		
7	336.3.2	PRIME COAT	TON	0.5000		
8	343.5.1.1	ROADWAY PAVEMENT REMOVALS/DISPOSAL, SAWCUT INCLUDED, CIP	SY	10,000		
9	343.5.1.3	REMOVE, DISPOSE & REPLACE EXISTING SIDEWALK & WALL AT	LS	1		
10	410.6.3	CHAIN LINK FENCE, REMOVE, RESET, (MATCH EX.) CIP	LS	1		
11	450.4.7	REMOVE AND RESET TRAFFIC SIGNS W/ NEW BASE CIP	LS	1		
12	701.17.1.2	TRENCH, EXCAVATION, AND BACKFILL, LESS THAN 8' DEPTH, PIPE NOT INCL.	LF	3,180		
13	210005	TRENCH, EXCAVATION, AND BACKFILL, LESS THAN 12' DEPTH, PIPE NOT INCL. WITH SHORING	LF	750		

14	701.17.1.2	TRENCH, EXCAVATION, AND BACKFILL, 12'-16' DEPTH, PIPE NOT INCL. (UNIT PRICE IS 0' - 16')	LF	2,184		
15	701.17.1.2	TRENCH, EXCAVATION, AND BACKFILL, 16'-20' DEPTH, PIPE NOT INCL. (UNIT PRICE IS 0' - 20')	LF	1,456		
16	701.17.2	OVER-EXCAVATION	CY	500		
17	701.17.4	EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL, CIP	CY	6,000		
18	701.32	BACKFILL MATERIAL, SELECT, CIP	CY	6,000		
19	801	6" PVC C900 REUSE WATERLINE, PLACE IN OPEN TRENCH, CIP	LF	6,978		
20	801.22	6" AIR RELIEF ASSEMBLY, CIP	EA	9		
21	801	6" BLOWOFF VALVE ASSEMBLY, CIP	EA	10		
22	801.3.3	6" GATE VALVE AND BOX, CIP	EA	5		
23	801.3.3	RELOCATE GATE VALVE AND BOX	EA	1		
24	802	ADJUST WATER SERVICE CONNECTION	LS	1		
25	901/15000	12" HDPE PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	LF	20		
26	901/15000	18" HDPE PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	LF	2,500		
27	901/15000	24" HDPE PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	LF	4,572		
28	901	30" RCP IV, PLACE IN OPEN TRENCH, CIP	LF	26		
29	901	CONNECT EXISTING SEWERLINE TO NEW MANHOLE	EA	6		

30	901	CONNECT NEW SEWERLINE TO EXISTING MANHOLE	EA	3		
31	901	REMOVE AND REPLACE FORCEMAIN, CIP	LS	1		
32	901	REMOVE AND DISPOSE EXISTING SAS LINE	LS	1		
33	901	REMOVE AND DISPOSE EXISTING MANHOLE (EX MH #1)	LS	1		
34	901.5.2	16" PVC PIPE, DR 21, PLACE IN OPEN TRENCH, CIP	LF	80		
35	901.5.2	6" PVC PIPE, DR 21, SEWER LATERAL, PLACE IN OPEN TRENCH, CIP	LF	871		
36	901.63	BY-PASS PUMP NO. 1	LS	1		
37	901.63	BY-PASS PUMP NO. 2	LS	1		
38	901.63	BY-PASS PUMP NO. 3	LS	1		
39	901.63	BY-PASS PUMP NO. 4	LS	1		
40	901.63	BY-PASS PUMP NO. 5	LS	1		
41	901.63	BY-PASS PUMP NO. 6	LS	1		
42	901.63	BY-PASS PUMP NO. 7	LS	1		
43	901.63	BY-PASS PUMP NO. 8	LS	1		
44	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 601 SWIRE	LS	1		
45	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 500 WESTERN	LS	1		
46	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 502 WESTERN	LS	1		
47	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 504 WESTERN	LS	1		
48	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 506 WESTERN	LS	1		
49	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 508 WESTERN	LS	1		
50	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 510 WESTERN	LS	1		
51	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 512 WESTERN	LS	1		
52	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 514 WESTERN	LS	1		
53	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 516 WESTERN	LS	1		

54	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 518 WESTERN	LS	1		
55	905	4" PVC SEWER SERVICE, PLACE IN OPEN TRENCH, CIP - 1000 W AZTEC	LS	1		
56	915	24" CMP CULVERT, REMOVE AND REPLACE, TRENCH AND BACKFILL	LF	107		
57	915.4	REMOVE, DISPOSE AND INSTALL NEW DROP INLET	EA	1		
58	915.4	REMOVE INLET	EA	1		
59	920.085	EXISTING MANHOLE, ABANDON-IN PLACE, CIP	EA	14		
60	920.07	MANHOLE, 4' DIA, 0'-10' DEEP, CIP	EA	1		
61	920.14	MANHOLE, 6' DIA, 0'-10' DEEP, CIP	EA	3		
62	920.15	MANHOLE, 6' DIA, 10'-15' DEEP, CIP	EA	14		
63	920.16	MANHOLE, 6' DIA, 15'-20' DEEP, CIP	EA	8		
64	920.17	MANHOLE, 8' DIA, 0'-14' DEEP, CIP	EA	1		
65	1011	SEEDING, CLASS "A", NATIVE, (DRILL SEED/STRAW MULCH) CIP	AC	20		
66	2999	NPDES STORM WATER PERMITTING / SWPPP	LS	1		
67	15030	CONSTRUCTION SURVEYING & STAKING	LS	1		
68	17010	TRAFFIC CONTROL AND BARRICADING	LS	1		
69	NMDOT	CONCRETE BOX CULVERT AND WINGWALLS, CIP	LS	1		
70	DWG	CONNECT TO WWTP HEADWORKS, CIP	LS	1		
71	MUTCD	INSTALL OBJECT MARKERS TYPE 3 W/ POSTS CIP	EA	4		
72	STS 16000	MOBILIZATION / DEMOBILIZATION	LS	1		

a) Base Bid – Subtotal of Bid Items No. 1 through 72 \$_____

b) Allowances:

Dewater Trench

\$ 250,000.00

Total Allowances:

\$ 250,000.00

c) Subtotal – Line a) Base Bid

subtotal plus Line b) Allowances:

\$_____

d) New Mexico Gross Receipts Tax (NMGR)

on amount on Line c) Subtotal at 8.00%:

\$_____

e) Base bid TOTAL – Line c) Subtotal plus Line d) NMGR:

\$ _____

_____ Dollars

(Base Bid Total amount written in words)

3. BIDDER acknowledges receipt of the following Addenda:

Addendum No. _____ Date _____ Addendum No. _____ Date _____

Addendum No. _____ Date _____ Addendum No. _____ Date _____

Addendum No. _____ Date _____ Addendum No. _____ Date _____

4. BIDDER agrees that this Bid Proposal may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receipt of bids.

5. If the Contract is to be awarded, OWNER will give the apparent Successful Bidder a Notice of Recommendation to Award within thirty (30) calendar days after the scheduled bid opening.

6. Upon receipt of Notice of Recommendation to Award, BIDDER shall execute the formal Contract Documents within ten (10) calendar days and deliver the Performance Bond, Labor and Material Payment Bond, and Certificates of Insurance as required herein.

7. The attached Bid Security is to become the property of the OWNER, in the event the Agreement and bonds are not executed within the time specified in this Bid Proposal, as liquidated damages for the delay and additional expenses caused to the OWNER.

8. BIDDER hereby agrees to commence Work under this Contract in accordance with the Notice to Proceed from the **Owner** and to achieve Substantial Completion of the Project as provided in the Contract Documents within **305** consecutive calendar days after the date Contract Time begins as provided in the Contract Documents.

In addition, Bidder agrees to complete or correct all punch list items attached to the Certificate of Substantial Completion within **60** consecutive calendar days following the date of Substantial Completion.

Bidder further agrees to pay as liquidated damages the amount of **\$1,000** for each consecutive calendar day beyond the agreed time that Substantial Completion is not achieved and **\$1,000** for each consecutive calendar day beyond the agreed time that all punch list items are not completed or corrected.

9. BIDDER hereby declares that the only persons or firms interested in the Bid Proposal as principal or principles is or are named herein and that no other persons or firms than herein mentioned have any interest in the Bid or in the Contract to be entered into; that this Bid is made without collusion with any person, company, or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

10. BIDDER hereby agrees if awarded the Contract, to comply with the Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements of the Supplementary Conditions and to submit all information and reports required therein.
11. If requested, BIDDER agrees to furnish to the OWNER all information and data necessary for the OWNER to determine the ability of BIDDER to perform the Work.
12. BIDDER must include the following federal forms with their bid: XP-211- Bidder Certification, XP 215-MBE/WBE/SBRA Utilization Information Sheet, XP-315 Davis Bacon Act Certification, 5700-49-Certification Regarding Document, and 6100-4-DBE Utilization form.

This Bid is hereby respectfully submitted by:

Name of BIDDER

Federal Tax ID Number

By: Printed Name

Authorized Signature

Title

Date

Bidder's Mailing Address

Bidder's NM Contractor's License
Number(s) and Classifications(s)

Additional Address Information

City, State, Zip Code

Contractor's Department of Labor
Registration Number

Bidder's Telephone Number

Bidder's Fax Number

Bidder's E-Mail Address

Bidder's Gross Receipts Tax No.

New Mexico State Corporation
Commission Number

**CITY OF AZTEC BIDDER'S LISTING of SUBCONTRACTORS for Compliance with
SUBCONTRACTORS FAIR PRACTICES ACT**

BIDDER must list all Subcontractors whose listing is required pursuant to the New Mexico Subcontractors Fair Practices Act and estimated work exceeds the threshold amount of Five Thousand and no/100 Dollars (\$5,000.00) or ½ of 1% of the engineer's estimate.

Company Name:			
Address:	City:	State:	Zip:
E-mail Address:	License Number:		
Phone Number:	Fax Number:		
Work to be performed:	Contract Over \$ 60,000: <input type="checkbox"/> YES <input type="checkbox"/> NO		

Company Name:			
Address:	City:	State:	Zip:
E-mail Address:	License Number:		
Phone Number:	Fax Number:		
Work to be performed:	Contract Over \$ 60,000: <input type="checkbox"/> YES <input type="checkbox"/> NO		

Company Name:			
Address:	City:	State:	Zip:
E-mail Address:	License Number:		
Phone Number:	Fax Number:		
Work to be performed:	Contract Over \$ 60,000: <input type="checkbox"/> YES <input type="checkbox"/> NO		

Company Name:			
Address:	City:	State:	Zip:
E-mail Address:	License Number:		
Phone Number:	Fax Number:		
Work to be performed:	Contract Over \$ 60,000: <input type="checkbox"/> YES <input type="checkbox"/> NO		

Company Name:			
Address:	City:	State:	Zip:
E-mail Address:	License Number:		
Phone Number:	Fax Number:		
Work to be performed:	Contract Over \$ 60,000: <input type="checkbox"/> YES <input type="checkbox"/> NO		

ADDITIONAL SHEETS LISTING SUBCONTRACTORS MAY BE ATTACHED IF NECESSARY.

NOTICE TO BIDDER

List only one subcontractor for each category of work.
**FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL
MAKE THE BID NON-RESPONSIVE** and the Bid will be rejected.

CONTRACTOR:

FIRM: _____
By: _____
Title: _____
Date: _____

Proposed Subcontractors List

General Contractor: _____

Please list all Subcontractors' not listed on the BIDDER'S LISTING of SUBCONTRACTORS in the space provided below.

Company Name: _____ Company Contact: _____
 Address: _____ City: _____ State: _____ Zip: _____
 E-Mail Address: _____ License No.: _____
 Phone No.: _____ Fax No.: _____ Sub _____ 2nd TIER _____ 3rd TIER _____
 (To Whom) (To Whom)
 Work to be performed: _____ Amount (\$): _____

Company Name: _____ Company Contact: _____
 Address: _____ City: _____ State: _____ Zip: _____
 E-Mail Address: _____ License No.: _____
 Phone No.: _____ Fax No.: _____ Sub _____ 2nd TIER _____ 3rd TIER _____
 (To Whom) (To Whom)
 Work to be performed: _____ Amount (\$): _____

Company Name: _____ Company Contact: _____
 Address: _____ City: _____ State: _____ Zip: _____
 E-Mail Address: _____ License No.: _____
 Phone No.: _____ Fax No.: _____ Sub _____ 2nd TIER _____ 3rd TIER _____
 (To Whom) (To Whom)
 Work to be performed: _____ Amount (\$): _____

Company Name: _____ Company Contact: _____
 Address: _____ City: _____ State: _____ Zip: _____
 E-Mail Address: _____ License No.: _____
 Phone No.: _____ Fax No.: _____ Sub _____ 2nd TIER _____ 3rd TIER _____
 Work to be performed: _____ (To Whom) _____ (To Whom) _____
 Amount (\$): _____

Company Name: _____ Company Contact: _____
 Address: _____ City: _____ State: _____ Zip: _____
 E-Mail Address: _____ License No.: _____
 Phone No.: _____ Fax No.: _____ Sub _____ 2nd TIER _____ 3rd TIER _____
 (To Whom) (To Whom)
 Work to be performed: _____ Amount (\$): _____

Company Name: _____ Company Contact: _____
 Address: _____ City: _____ State: _____ Zip: _____
 E-Mail Address: _____ License No.: _____
 Phone No.: _____ Fax No.: _____ Sub _____ 2nd TIER _____ 3rd TIER _____
 (To Whom) (To Whom)
 Work to be performed: _____ Amount (\$): _____

Please submit to the City of Aztec Purchasing Division a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Please make additional copies of this form as necessary.

Bid Bond

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID

BID DUE DATE: _____

PROJECT (Brief Description Including Location):

BOND

BOND NUMBER: _____

Date (Not later than Bid due date): _____

Penal Sum: _____ (Words) _____ (Figures)

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bounded hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

Bidder's Name and Corporate Seal (Seal)

By: _____
Signature and Title

Attest: _____
Signature and Title

SURETY

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attached power of Attorney)

Attest: _____
Signature and Title

-
- Note: (1) Above address are to be used for giving required notice.
(2) Any singular reference to Bidder, Surety, OWNER or other party shall be considered plural where applicable.

Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents, or

3.2 All Bids are rejected by OWNER, or

3.3 OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default by Bidder and within thirty (30) calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to thirty (30) calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power or Attorney evidencing the authority of the offer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer or proposal as applicable.

**CERTIFICATION OF BIDDER REGARDING
AFFIRMATIVE ACTION / EQUAL EMPLOYMENT OPPORTUNITY
AND NONDISCRIMINATION**

PROJECT: SANITARY SEWER INTERCEPTOR IMPROVEMENTS

The Bidder hereby acknowledges and agrees to abide by the Special provisions for Affirmative Action/Equal Employment Opportunity and Nondiscrimination and all other provisions, regulations, of the OWNER for Affirmative Action/Equal Employment Opportunity and Nondiscrimination.

The Bidder has participated with any agency in a previous contract or subcontract subject to any Equal Employment Opportunity and Nondiscrimination in Employment requirements?

Yes (☐) No (☐)

Compliance reports were required to be filed in connection with such contract or subcontract?

Yes (☐) No (☐)

The Bidder has filed all compliance reports due under applicable instructions? If answer to this statement is "No, explain in detail on the reverse side of this certification.

Name of Bidder

Address of Bidder

Telephone Number

By (Signature) (Date)

Printed Name & Title of Bidder's Authorized Representative.

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____}

County of _____}

Being first duly sworn deposes and says that:

1. He/She is the _____ of, the Bidder that has submitted the attached bid;
2. He/She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
3. Such Bid is genuine and is not a collusive or sham Bid;
4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from Bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other Bidder firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price of any other Bidder, or to secure through collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Aztec or any person interested in the proposed Contract; and
5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Subscribed and sworn to before me this _____ day
of _____, 20____

Signed:

Notary Public

Title

My commission expires: _____

XP -211

BIDDER'S CERTIFICATIONS

Project Name_____ Project Number _____

Contract For _____

The following certifications must be completed by the bidder for each contract.

A. EQUAL EMPLOYMENT OPPORTUNITY:

- ☐ I have developed and have on file at my each establishment affirmative action programs pursuant to 41 CFR Part 60-2.
- ☐ I have participated in previous contract(s) or subcontract(s) subject to the equal opportunity clause under **Executive Orders 11246 and 11375**. I have filed all reports due under the requirements contained in 41 CFR 60-1.7.
- ☐ I have not participated in previous contract(s) subject to the equal opportunity clause under **Executive Orders 11246 and 11375**.
- ☐ I will obtain a similar certification from any proposed subcontractor(s), when appropriate.

B. NONSEGREGATED FACILITIES

- ☐ I certify that I do not and will not maintain any facilities provided for my employees in a segregated manner, or permit my employees to perform their services at any location under my control where segregated facilities are maintained; and that I will obtain a similar certification prior to the award of any federally assisted subcontract exceeding \$10,000 which is not exempt from the equal opportunity clause as required by 41 CFR 60-1.8.

I understand that a false statement on this certification may be grounds for rejection of this bid proposal or termination of the contract award.

Typed Name & Title of Bidder's Authorized Representative

Signature of Bidder's Authorized Representative

Date

Name & Address of Bidder

XP-215 MBE/WBE/SBRA ENGINEERING UTILIZATION INFORMATION SHEET

NOTE: The offeror shall complete the following Minority/Women's/Small Business in Rural Area (MBE/WBE/SBRA) utilization information whenever they solicit sub-consultant work and/or services for the project in order to provide the fair share of the total dollar amount of the contract for

MBE:	Construction	<u>N/A</u>	, Equipment	<u>N/A</u>	, Supplies	<u>N/A</u>	, Services	<u>38.78 %</u>
WBE:	Construction	<u>N/A</u>	, Equipment	<u>N/A</u>	, Supplies	<u>N/A</u>	, Services	<u>40.00 %</u>
SBRA:	Construction	<u></u>	, Equipment	<u></u>	, Supplies	<u></u>	, Services	<u></u>

1. Do you maintain and update qualified MBE, WBE, and SBRA on your solicitation lists for supplies, equipment, construction and/or service? Yes___ No___
If yes, when did you update your MBE/WBE/SBRA solicitation lists? _____
2. Do you maintain a list of minority, women and rural small business-focused publications that may be utilized to solicit MBEs or WBEs or SBRA's? Yes___ No___
If yes, name the publications: _____
3. Do you use the services of outreach programs sponsored by the Minority Business Development Agency and/or the Small Business Administration to recruit bona fide MBE/WBE/SBRA firms for placement on your solicitation lists? Yes___ No___
4. Do you seek out Minority Business Development Centers to assist you in identifying MBEs/WBEs/SBRAs for potential work opportunities on your proposal for this project?
Yes___ No___
5. Do you analyze the request for proposal to identify portions of work that can be divided and performed by qualified MBEs, WBEs, and SBRA's including the bonding range? Yes___ No___
If yes, please attach a brief description of portions of work you have identified for sub-consulting.
6. Do you develop realistic delivery schedules which may provide for greater MBE/WBE/SBRA participation? Yes___ No___
7. Do you send a letter of solicitation to MBE/WBE/SBRA for this proposed project? Yes___ No___
If yes, please attach a sample copy of each different solicitation letter and the name and address of each MBE/WBE/SBRA.
8. Do you advertise in general circulation, trade journals, State agency publications of identified MBEs/WBEs/SBRAs, minority or women or rural small business focused media, etc., concerning the sub-consulting opportunities on your proposal for this project? Yes___ No___
If yes, please list the name of publication and dates of advertisement and attach a copy of each advertisement from each publication.
9. Do you conduct pre-solicitation, meetings and follow-ups with interested MBE, WBE, and SBRA?
Yes___ No___
If yes, please list person who attended conference as representative of MBE/WBE/SBRA

Name & Title of Person: _____
Name of MBE/WBE/SBRA: _____
Address: _____ Phone: _____
Date and Place of Conference: _____

Name & Title of Person: _____
Name of MBE/WBE/SBRA: _____
Address: _____ Phone: _____
Date and Place of Conference: _____

Name & Title of Person: _____
Name of MBE/WBE/SBRA: _____

Address: _____ Phone: _____

Date and Place of Conference: _____

10. Total dollar amount of the contract:
\$ _____

11. Total dollar amount and percentage of MBE/WBE/SBRA participation:

MBE:	Construction	____%	Equipment	____%	Supplies	____%	Services	____%
	(\$ _____)		(\$ _____)		(\$ _____)		(\$ _____)	
WBE:	Construction	____%	Equipment	____%	Supplies	____%	Services	____%
	(\$ _____)		(\$ _____)		(\$ _____)		(\$ _____)	
SBRA:	Construction	____%	Equipment	____%	Supplies	____%	Services	____%
	(\$ _____)		(\$ _____)		(\$ _____)		(\$ _____)	

12. Name, address, phone number, contact person, type of construction subcontract, and dollar amount of subcontract.

MBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

MBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

WBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

WBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

SBRA Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

SBRA Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

MBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

MBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

WBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

WBE Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

SBRA Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

SBRA Sub-consultant:

Address: _____

Phone: _____

Contact Person: _____

Type of Work: _____

Amount: \$ _____

I understand that a false statement on the above information may be grounds for rejection of the offeror's proposal or termination of the contract award.

Typed Name & Title of Authorized Representative

Signature of Offeror's Authorized Representative

Date

United States Environmental Protection Agency
Washington, DC 20460

**Certification Regarding
Debarment, Suspension, and Other Responsibility Matters**

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated or cause of default.

I understand that a false statement on this certification may be ground for rejection of this proposal or termination of the award. In addition, under 18 U.S.C. Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Bidder's Authorized Representative

Date



I am unable to certify to the above statements. My explanation is attached.

FORM 6100-2
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

A Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature	Title/ date

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. ² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

FORM 6100-3
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <input type="checkbox"/> DOT <input type="checkbox"/> SBA <input type="checkbox"/> Other: _____ <input type="checkbox"/> Not certified		Meets/ exceeds EPA certification standards? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Unknown

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Title/ date
Subcontractor Signature	Title/ date

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. ² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

FORM 6100-4
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

I have identified potential DBE certified subcontractors	___ YES	___ NO
--	---------	--------

If yes, please complete the table below. If no, please explain:

Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Title/ date

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. ² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

(02-2014)

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6**

**Supplemental conditions
for
Federally Assisted Storm Water and/or Wastewater
Infrastructures under the
Clean Water State Revolving Loan Fund
Revised February 2014**

REPRODUCTION OF THIS GUIDANCE
SHOULD BE ON COLORED PAPER,
PREFERABLY PINK

REQUIRED FEDERAL FORMS

Forms that must be submitted within bidder's proposal:

1. XP-211 Certifications Regarding Contract under Equal Opportunity Clause & Non-Segregated Facilities
2. XP-215 MBW/WBE/SBRA Utilization Form along with proof of solicitation (i.e. newspaper advertisement, letters of solicitation)
3. XP-315 Davis Bacon Certification
4. 5700-49 Certification Regarding Debarment, Suspension & Other Responsibility Matters
5. 6100-2
6. 6100-3
7. 6100-4

Form to be provided with every construction pay application:

8. XP-214 Labor Standards Certification

REFERENCES

- Copeland Anti-Kickback, 29 CFR Part 3
<http://www.dol.gov/compliance/laws/comp-copeland.htm>
- Suspension and Debarment, Subpart C of 2 CFR 180 and 1532
http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr180_main_02.tpl
http://edocket.access.gpo.gov/cfr_2009/janqtr/pdf/2cfr1532.332.pdf
- Disadvantaged Business Enterprise, 40 CFR Part 33
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div5&view=text&node=40:1.0.1.2.30&idno=40>
- Equal Employment Opportunity, 41 CFR Part 60
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div5&view=text&node=41:1.2.3.1.1&idno=41>
- Labor Standards, 29 CFR Parts 4 & 6
http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title29/29cfr4_main_02.tpl
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=99c9a20e960f56be66f17ae91b52c888&rgn=div5&view=text&node=29:1.1.1.1.7&idno=29>
- Nondiscrimination, 40 CFR Part 7
<http://www.epa.gov/ocr/docs/40p0007.pdf>
- OMB Circular A-133
http://www.whitehouse.gov/omb/assets/a133_compliance/app_7.pdf
- Reissuance of NPDES General Permits for Storm Water Discharges from Construction Sites in Region 6- Federal Register
<http://www.epa.gov/region6/6en/w/sw/swcon98.pdf>
- Uniform Administrative Requirements, 40 CFR Part 31
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div5&view=text&node=40:1.0.1.2.29&idno=40>

Model Contract Clauses—Attached

NPDES Bypass Policy—Attached

Federal Cross-Cutters—Attached

XP-211

BIDDER'S CERTIFICATION*

In Compliance with Equal Employment Opportunity and Nonsegregated Facilities

Project Name _____ Project Number _____
Contract For _____

The following certifications must be completed by the bidder for each contract.

A. EQUAL EMPLOYMENT OPPORTUNITY:

- () I have developed and have on file at my each establishment affirmative action programs pursuant to 41 CFR Part 60-2.
- () I have participated in previous contract(s) or subcontract(s) subject to the equal opportunity clause under **Executive Orders 11246 and 11375**. I have filed all reports due under the requirements contained in 41 CFR 60-1.7.
- () I have not participated in previous contract(s) subject to the equal opportunity clause under **Executive Orders 11246 and 11375**.
- () I will obtain a similar certification from any proposed subcontractor(s), when appropriate.

B. NONSEGREGATED FACILITIES

- () I certify that I do not and will not maintain any facilities provided for my employees in a segregated manner, or permit my employees to perform their services at any location under my control where segregated facilities are maintained; and that I will obtain a similar certification prior to the award of any federally assisted subcontract exceeding \$10,000 which is not exempt from the equal opportunity clause as required by 41 CFR 60-1.8.

I understand that a false statement on this certification may be grounds for rejection of this bid proposal or termination of the contract award.

Typed Name & Title of Bidder's Authorized Representative _____

Signature of Bidder's Authorized Representative _____ Date _____

Name & Address of Bidder

**CERTIFICATION BY CONTRACTOR
STATEMENT OF COMPLIANCE
WITH LABOR STANDARDS**

In accordance with Title 29, Subtitle A, Part 5, Section 5.6(a)(1), each monthly pay application must be accompanied by the following certification executed by each prime contractor employing mechanics and laborers at the site on work in which the New Mexico Environment Department Clean Water State Revolving Loan makes funds available to participate:

Pay Application No. _____ for period _____ to _____

Name of Project

Location

Contract No.

Date Contract Awarded

Project No. _____

I hereby certify that all of the contract requirements as specified under the applicable labor standards as set forth in the Davis-Bacon Act, the Copeland "Anti-Kickback" Act and the Contract Work Hours and Safety Standards Act, have been complied with by _____ as principal contractor and by each _____

(Name of Contractor)

subcontractor employing mechanics or laborers at the site of the work, or there is a substantial dispute with the respect to the required provisions. I also certify that I have submitted all weekly payroll to _____ (Name of grantee).

Typed Name & Title of Contractor's Authorized Representative

Signature of Contractor's Authorized Representative

Date

Owner/Grantee Certification

I hereby certify that the above is true to the best of my knowledge and that I have reviewed all certified payroll supplied by the prime contractor and certify that it meets all labor standards as set forth in the Davis Bacon Act.

Signature of Grantee Authorized Representative

Date

I understand that the falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

NOTE: The bidder shall complete the following Minority/Women's/Small Business in Rural Area (MBE/WBE/SBRA) utilization information whenever they solicit sub contract construction work and/or services and purchase of equipment and supplies for the project in order to provide the fair share of the total dollar amount of the contract for

MBE: Construction 41.03 %, Equipment 36.69 %, Supplies 25.51 %, Services 38.78 %
 WBE: Construction 6.47 %, Equipment 30.65 %, Supplies 35.30 %, Services 40.00 %
 SBRA: Construction _____, Equipment _____, Supplies _____, Services _____

1. Do you maintain and update qualified MBE, WBE, and SBRA on your solicitation lists for supplies, equipment, construction and/or service? Yes___ No___

If yes, when did you update your MBE/WBE/SBRA solicitation lists? _____

2. Do you maintain a list of minority, women and rural small business-focused publications that may be utilized to solicit MBEs or WBEs or SBRA's?
 Yes___ No___

If yes, name the publications: _____

3. Do you use the services of outreach programs sponsored by the Minority Business Development Agency and/or the Small Business Administration to recruit bona fide MBE/WBE/SBRA firms for placement on your solicitation lists? Yes___ No___
4. Do you seek out Minority Business Development Centers to assist you in identifying MBEs/WBEs/SBRAs for potential work opportunities on your proposed bid for this project? Yes___ No___

5. Do you analyze the bid package or contract documents to identify portions of work that can be divided and performed by qualified MBEs, WBEs, and SBRA's including the bonding range? Yes___ No___

If yes, please attach a brief description of portions of work you have identified for subcontracting.

6. Do you develop realistic delivery schedules which may provide for greater MBE/WBE/SBRA participation? Yes___ No___

7. Do you send a letter of solicitation to MBE/WBE/SBRA for this project?
 Yes___ No___

If yes, please attach a sample copy of each different solicitation letter and the name and address of each MBE/WBE/SBRA.

8. Do you advertise in general circulation, trade journals, State agency publications of identified MBEs/WBEs/SBRAs, minority or women or rural small business focused media, etc., concerning the subcontracting opportunities on your proposed bid for this project? Yes___ No___

If yes, please list the name of publication and dates of advertisement and attach a copy of each advertisement from each publication.

9. Do you conduct pre-bid, pre-solicitation, and post award conferences, meetings and follow-ups with interested MBE, WBE, and SBRA? Yes ___ No ___

If yes, please list person who attended conference as representative of MBE/WBE/SBRA

Name & Title of Person: _____

Name of MBE/WBE/SBRA: _____

Address: _____ Phone: _____

Date and Place of Conference: _____

Name & Title of Person: _____

Name of MBE/WBE/SBRA: _____

Address: _____ Phone: _____

Date and Place of Conference: _____

Name & Title of Person: _____

Name of MBE/WBE/SBRA: _____

Address: _____ Phone: _____

Date and Place of Conference: _____

10. Total dollar amount of the contract:

\$

11. Total dollar amount and percentage of MBE/WBE/SBRA participation:

MBE:	Construction	____%	Equipment	____%	Supplies	____%	Services	____%
	(\$)		(\$)		(\$)		(\$)	
WBE:	Construction	____%	Equipment	____%	Supplies	____%	Services	____%
	(\$)		(\$)		(\$)		(\$)	
SBRA:	Construction	____%	Equipment	____%	Supplies	____%	Services	____%
	(\$)		(\$)		(\$)		(\$)	

12. Name, address, phone number, contact person, type of construction subcontract, and dollar amount of subcontract.

MBE Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

WBE Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

SBRA Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

MBE Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

WBE Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

SBRA Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

MBE Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

WBE Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

SBRA Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Amount: \$

MBE Subcontractor:

Address:

Phone:

Contact Person:

WBE Subcontractor:

Address:

Phone:

Contact Person:

SBRA Subcontractor:

Address:

Phone:

Contact Person:

Type of Work:

Type of Work:

Type of Work:

Amount: \$

Amount: \$

Amount: \$

MBE Subcontractor:

WBE Subcontractor:

SBRA Subcontractor:

Address:

Address:

Address:

Phone:

Phone:

Phone:

Contact Person:

Contact Person:

Contact Person:

Type of Work:

Type of Work:

Type of Work:

Amount: \$

Amount: \$

Amount: \$

I understand that a false statement on the above information may be grounds for rejection of this bid proposal or termination of the contract award.

Typed Name & Title of Authorized Representative

Signature of Bidder's Authorized Representative

Date

Davis-Bacon Act Certification

The Contractor acknowledges to and for the benefit of the Owner _____ ("Purchaser") and the State of New Mexico (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the New Mexico Environment Department Clean Water State Revolving Loan Fund and such law contains provisions commonly known as the Davis-Bacon Act that requires all contractors and subcontractors performing work on federal construction contracts or federally assisted contracts in excess of \$2,000 to pay their laborers and mechanics not less than the federal prevailing wage rates and fringe benefits for corresponding classes of laborers and mechanics employed on similar projects in the area as determined by the Secretary of Labor.

The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the Davis-Bacon Act, (b) as such has compensated all contractors and sub-contractors performing work on this project not less than the prevailing wage rate and fringe benefits for corresponding classes as determined by the Secretary of Labor, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

(Contractor Signature & Date)

(Owner Signature & Date)

EPA Project Control Number

United States Environmental Protection Agency
Washington, DC 20460

**Certification Regarding
Debarment, Suspension, and Other Responsibility Matters**

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated or cause or default.

I understand that a false statement on this certification may be ground for rejection of this proposal or termination of the award. In addition, under 18 U SC Sec. 10 01, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Bidder's Authorized Representative

Date

I am unable to certify to the above statements. My explanation is attached.

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Participation Form

A Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

Please use the space below to report any concerns regarding the above EPA-funded project:

<div style="border-bottom: 1px solid black; height: 1.2em; margin-bottom: 2px;"></div> <div style="border-bottom: 1px solid black; height: 1.2em; margin-bottom: 2px;"></div> <div style="border-bottom: 1px solid black; height: 1.2em; margin-bottom: 2px;"></div> <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	
Subcontractor Signature	Title/ date

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. ² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

FORM 6100-3
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services , Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <input type="checkbox"/> DOT <input type="checkbox"/> SBA <input type="checkbox"/> Other: _____ <input type="checkbox"/> Not certified		Meets/ exceeds EPA certification standards? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Unknown

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Title/ date
Subcontractor Signature	Title/ date

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. ² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

FORM 6100-4
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

I have identified potential DBE certified subcontractors	___ YES	___ NO
--	---------	--------

If yes, please complete the table below. If no, please explain:

Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Title/ date

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. ² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Wage Rate Requirements

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The

State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the

Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social

security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the

required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not

less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for

unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates.

The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6

MODEL CONTRACT CLAUSE

Recipients must ensure that, when appropriate, the following clauses or their equivalent are included in each contract.

1. SUPERSESSON

The recipient and the contractor agree that this and other appropriate clauses in 40 CFR 31.36(i) apply to that work eligible for EPA assistance to be performed under this contract and that these clauses supersede any conflicting provisions of this contract.

2. PRIVITY OF CONTRACT

This contract is expected to be funded in part with funds from the U.S. Environmental Protection Agency. Neither the United States nor any of its departments, agencies or employees is, or will be, a party to this contract or any lower tier contract. This contract is subject to the applicable EPA procurement regulations in effect on the date of the assistance award for this project.

3. CHANGES

a. The following clause applies only to contracts for construction.

1. The recipient may at any time, without notice to any surety, by written order, make any change in the work within the general scope of the contract, including but not limited to changes:
 - i. In the specifications (including drawings and designs);
 - ii. In the time, method or manner of performance of the work;
 - iii. In the recipient-furnished facilities, equipment, materials, services or site, or
 - iv. Directing acceleration in the performance of the work.
2. A change order shall also be any other written order (including direction, instruction, interpretation or determination) from the recipient which causes any change, provided the contractor gives the recipient written notice stating the date, circumstances and source of the order and that the contractor regards the order as a change order.
3. Except as provided in this clause, no order, statement or conduct of the recipient shall be treated as a change under this clause or entitle the contractor to an equitable adjustment.
4. If any change under this clause causes an increase or decrease in the contractor's cost or the time required to perform any part of the work under this contract, whether or not changed by any order, the recipient shall make an equitable adjustment and modify the contract in writing. Except for claims based on defective specifications, no claim for any change under paragraph (a)(2) above shall be allowed for any costs incurred more than 20 days before the contractor gives written notice as required in paragraph (a)(2). In the case of defective specifications for which the recipient is responsible, the equitable adjustment shall include any increased cost the

contractor reasonably incurred in attempting to comply with those defective specifications.

5. If the contractor intends to assert a claim for an equitable adjustment under this clause, the contractor must, within 30 days after receipt of a written change order under paragraph (a)(1) or the furnishing of a written notice under paragraph (a)(2), submit a written statement to the recipient setting forth the general nature and monetary extent of such claim. The recipient may extend the 30-day period. The contractor may include the statement of claim in the notice under paragraph (2) of this changes clause.

6. No claim by the contractor for an equitable adjustment shall be allowed if made after final payment under this contract.

b. The following clause applies only to contracts for services.

1. The recipient may at any time, by written order and without notice to the sureties, make changes within the general scope of this contract in the services or work to be performed. If such changes cause an increase or decrease in the contractor's cost or time required to perform any services under this contract, whether or not changed by any order, the recipient shall make an equitable adjustment and modify this contract in writing. The contractor must assert any claim for adjustment under this clause in writing within 30 days from the date it receives the recipient's notification of change, unless the recipient grants additional time before the date of final payment.

2. No claim by the contractor for an equitable adjustment shall be allowed if made after final payment under this contract.

3. No services for which the contractor will charge an additional compensation shall be furnished without the written authorization of the recipient.

c. The following clause applies only to contracts for supplies.

1. The recipient may at any time, by written order and without notice to the sureties, make changes within the general scope of this contract in any one or more of the following:

- i. Drawings, designs or specifications where the supplies to be furnished are specifically manufactured for the recipient;
- ii. Method of shipment or packing; and
- iii. Place of delivery.

2. If any changes cause an increase or decrease in the cost or time required to perform any part of the work under this contract, whether or not changed by such order, the recipient shall make an equitable adjustment in the contract price or delivery schedule, or both, and modify the contract in writing. The contractor must assert any claim for adjustment under this clause within 30 days from the date the contractor receives the recipient's notification of change. If the recipient decides that the facts justify such action, the recipient may receive and act upon any such claim asserted at any time before final payment under this contract. where the cost of property made obsolete or excess as a result of a change is included in the contractor's claim for adjustment, the recipient has the right to prescribe the manner of disposition of such property. Nothing in this clause shall excuse the contractor from proceeding with the contract as changed.

3. No claim by the contractor for an equitable adjustment shall be allowed if made after final

payment under this contract.

4. DIFFERING SITE CONDITIONS

The following clause applies only to construction contracts.

- a. The contractor shall promptly, and before such conditions are disturbed, notify the recipient in writing of:
 - 1. Subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or
 - 2. Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract.
- b. The recipient shall promptly investigate the conditions. If it finds that conditions materially differ and will cause an increase or decrease in the contractor's cost or the time required to perform any part of the work under this contract, whether or not changed as a result of such conditions, the recipient shall make an equitable adjustment and modify the contract in writing.
- c. No claim of the contractor under this clause shall be allowed unless the contractor has given the notice required in paragraph (a) of this clause. However, the recipient may extend the time prescribed in paragraph (a).
- d. No claim by the contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

5. SUSPENSION OF WORK

The following clause applies only to construction contracts.

- a. The recipient may order the contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as the recipient may determine to be appropriate for the convenience of the recipient.
- b. If the performance of all or any part of the work is suspended, delayed or interrupted for an unreasonable period of time by an act of the recipient in administration of this contract, or by the recipient's failure to act within the time specified in this contract (or if no time is specified, within a reasonable time), the recipient shall make an adjustment for any increase in the cost of performance of this contract (excluding profit) necessarily caused by such unreasonable suspension, delay or interruption and modify the subagreement in writing. However, no adjustment shall be made under this clause for any suspension, delay or interruption to the extent (1) that performance would have been so suspended, delayed or interrupted by any other cause, including the fault or negligence of the contractor, or (2) for which an equitable adjustment is provided for or excluded under any other provision of this contract.
- c. No claim under this clause shall be allowed (1) for any costs incurred more than 20 days before the contractor notified the recipient in writing of the act, or failure to act, involved (this requirement does not apply to a claim resulting from a suspension order), and (2) unless the amount claimed is asserted in writing as soon as practicable after the termination of such

suspension, delay or interruption, but not later than the date of final payment under the contract.

6. TERMINATION

The following clause applies only to contracts over \$10,000.

- a. This contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this contract through no fault of the terminating party, provided that no termination may be effected unless the other party is given (1) not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate, and (2) an opportunity for consultation with the terminating party prior to termination.
- b. This contract may be terminated in whole or in part in writing by the recipient for its convenience, provided that the contractor is given (1) not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate, and (2) an opportunity for consultation with the terminating party prior to termination.
- c. If termination for default is effected by the recipient, an equitable adjustment in the price provided for in this contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the contractor at the time of termination may be adjusted to cover any additional costs to the recipient because of the contractor's default. If termination for default is effected by the contractor, or if termination for convenience is effected by the recipient, the equitable adjustment shall include a reasonable profit for services or other work performed. The equitable adjustment for any termination shall provide for payment to the contractor for services rendered and expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by the contractor relating to commitments which had become firm prior to the termination.
- d. Upon receipt of a termination action under paragraphs (a) or (b) above, the contractor shall (1) promptly discontinue all affected work (unless the notice directs otherwise), and (2) deliver or otherwise make available to the recipient all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the contractor in performing this contract, whether completed or in process.
- e. Upon termination under paragraphs (a) or (b) above, the recipient may take over the work and may award another party a contract to complete the work under this contract.
- f. If, after termination for failure of the contractor to fulfill contractual obligations, it is determined that the contractor had not failed to fulfill contractual obligations, the termination shall be deemed to have been for the convenience of the recipient. In such event, adjustment of the subagreement price shall be made as provided in paragraph (c) of this clause.

7. REMEDIES

This clause applies only to contracts over \$25,000.

Unless otherwise provided in this contract, all claims, counter-claims, disputes and other matters

in question between the recipient and the contractor arising out of, or relating to, this contract or the breach of it will be decided, if the parties mutually agree, by arbitration, mediation, or other alternative dispute resolution mechanism; or in a court of competent jurisdiction within the State in which the recipient is located.

8. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA

NOTE - The following clause applies to (1) any contract negotiated between the recipient and its contractor in excess of \$100,000; (2) negotiated contract amendments or change orders in excess of \$100,000 affecting the price of a formally advertised, competitively awarded, fixed price contract, or (3) any lower tier contract or purchase order in excess of \$100,000 under a contract other than a formally advertised, competitively awarded, fixed price contract. This clause does not apply to contracts awarded on the basis of effective price competition.

a. The contractor and subcontractor, where appropriate, assure that the cost and pricing data submitted for evaluation with respect to negotiation of prices for negotiated contracts, lower tier contracts and change orders is based on current, accurate and complete data supported by their books and records. If the recipient or EPA determines that any price (including profit) negotiated in connection with this contract, lower tier contract or amendment thereunder was increased by any significant sums because the data provided was incomplete, inaccurate or not current at the time of submission, then such price or cost or profit shall be reduced accordingly and the recipient shall modify the contract in writing to reflect such action.

b. Failure to agree on a reduction shall be subject to the remedies clause of this contract.

NOTE - Since the contract is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with lower tier contracts, the contractor may wish to include a clause in each lower tier contract requiring the lower tier contractor to appropriately indemnify the contractor. It is expected that any lower tier contractor subject to such indemnification will generally require substantially similar indemnification for defective cost and pricing data submitted by lower tier contractors.

9. AUDIT; ACCESS TO RECORDS

a. The contractor shall maintain books, records, documents and other evidence directly pertinent to performance on EPA funded work under this contract in accordance with generally accepted accounting principles and practices consistently applied, and the applicable EPA regulations in effect on the date of execution of this contract. The contractor shall also maintain the financial information and data used in the preparation or support of any cost submission required under applicable regulations for negotiated contracts or change orders and a copy of the cost summary submitted to the recipient. The United States Environmental Protection Agency, the Comptroller General of the United States, the United States Department of Labor, the recipient, and [the State] or any of their authorized representatives shall have access to all such books, records, documents and other evidence for the purpose of inspection, audit and copying during normal business hours. The contractor will provide proper facilities for such access and inspection.

b. If this is a fixed price contract awarded through sealed bidding or otherwise on the basis of effective price competition, the contractor agrees to make paragraphs (a) through (g) of this clause applicable to all negotiated change orders and contract amendments affecting the contract price. In the case of all other types of prime contracts, the contractor agrees to make paragraphs (a) through (g) applicable to all contract awards in excess of \$10,000, at any tier, and to make paragraphs (a) through (g) of this clause applicable to all change orders directly related to project performance.

c. Audits conducted under this provision shall be in accordance with generally accepted auditing standards and with established procedures and guidelines of the reviewing or audit agency(ies).

d. The contractor agrees to disclose all information and reports resulting from access to records under paragraphs (a) and (b) of this clause to any of the agencies referred to in paragraph (a).

e. Records under paragraphs (a) and (b) above shall be maintained by the contractor during performance on EPA assisted work under this contract and for the time periods specified in 40 CFR part 31. In addition, those records which relate to any controversy arising under an EPA assistance agreement, litigation, the settlement of claims arising out of such performance or to costs or items to which an audit exception has been taken shall be maintained by the contractor for the time periods specified in 40 CFR part 31.

f. Access to records is not limited to the required retention periods. The authorized representatives designated in paragraph (a) of this clause shall have access to records at any reasonable time for as long as the records are maintained.

g. This right of access clause applies to financial records pertaining to all contracts (except for fixed price contracts awarded through sealed bidding or otherwise on the basis of effective price competition) and all contract change orders regardless of the type of contract, and all contract amendments regardless of the type of contract. In addition this right of access applies to all records pertaining to all contracts, contract change orders and contract amendments:

1. To the extent the records pertain directly to contract performance;
2. If there is any indication that fraud, gross abuse or corrupt practices may be involved;
- or
3. If the subagreement is terminated for default or for convenience.

10. COVENANT AGAINST CONTINGENT FEES

The contractor assures that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee excepting bona fide employees or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business. For breach or violation of this assurance, the recipient shall have the right to annul this agreement without liability or, at its discretion, to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage or contingent fee.

11. GRATUITIES

a. If the recipient finds after a notice and hearing that the contractor or any of the contractor's agents or representatives offered or gave gratuities (in the form of entertainment, gifts or

otherwise) to any official, employee or agent of the recipient, the State or EPA in an attempt to secure a contract or favorable treatment in awarding, amending or making any determinations related to the performance of this contract, the recipient may, by written notice to the contractor, terminate this contract. The recipient may also pursue other rights and remedies that the law or this contract provides.

b. In the event this contract is terminated as provided in paragraph (a), the recipient may pursue the same remedies against the contractor as it could pursue in the event of a breach of the contract by the contractor, and as a penalty, in addition to any other damages to which it may be entitled by law, be entitled to exemplary damages in an amount (as determined by the recipient) which shall be not less than three nor more than ten times the costs the contractor incurs in providing any such gratuities to any such officer or employee.

12. BUY AMERICAN

This clause applies only to construction contracts award under 40 CFR Part 35, Subparts E and I.

In accordance with Section 215 of the Clean Water Act (33 U.S.C. 1251 et. seq.) and 40 CFR 31.36(c)(5), the contractor agrees that preference will be given to domestic construction material by the contractor, subcontractors, materialmen and supplies in the performance of this contract.

13. RESPONSIBILITY OF THE CONTRACTOR

a. The following clause applies only to subagreements for services.

1. The contractor is responsible for the professional quality, technical accuracy, timely completion and coordination of all designs, drawings, specifications, reports and other services furnished by the contractor under this contract. If the contract involves environmental measurements or data generation, the contractor shall comply with EPA quality assurance requirements in 40 CFR 31.45. The contractor shall, without additional compensation, correct or revise any errors, omissions or other deficiencies in his designs, drawings, specifications, reports and other services.
2. The contractor shall perform the professional services necessary to accomplish the work specified in this contract in accordance with this contract and applicable EPA requirements in effect on the date of execution of the assistance agreement for this project.
3. The owner's or EPA's approval of drawings, designs, specifications, reports and incidental work or materials furnished shall not in any way relieve the contractor of responsibility for the technical adequacy of his work. Neither the owner's nor EPA's review, approval, acceptance or payment for any of the services shall be construed as a waiver of any rights under this agreement or of any cause for action arising out of the performance of this contract.
4. The contractor shall be, and shall remain, liable in accordance with applicable law for all damages to the owner or EPA caused by the contractor's negligent performance of any of the services furnished under this contract, except for errors, omissions or other deficiencies to the extent attributable to the owner, owner-furnished data or any third party. The contractor shall not

be responsible for any time delays in the project caused by circumstances beyond the contractor's control.

5. The contractor's obligations under this clause are in addition to the contractor's other express or implied assurances under this contract or State law and in no way diminish any other rights that the owner may have against the contractor for faulty materials, equipment or work.

b. The following clause applies only to contracts for construction.

1. The contractor agrees to perform all work under this contract in accordance with this agreement's designs, drawings and specifications.

2. The contractor guarantees for a period of at least one (1) year from the date of substantial completion of the work that the completed work is free from all defects due to faulty materials, equipment or workmanship and that he shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs of any damage to other parts of the system resulting from such defects. The owner shall promptly give notice to the contractor of observed defects. In the event that the contractor fails to make adjustments, repairs, corrections or other work made necessary by such defects, the owner may do so and charge the contractor the cost incurred. The performance bond shall remain in full force and effect through the guarantee period.

3. The contractor's obligations under this clause are in addition to the contractor's other express or implied assurances under this contract or State law and in no way diminish any other rights that the owner may have against the contractor for faulty materials, equipment or work.

14. FINAL PAYMENT

Upon satisfactory completion of the work performed under this contract, as a condition before final payment under this contract or as a termination settlement under this contract the contractor shall execute and deliver to the owner a release of all claims against the owner arising under, or by virtue of, this contract, except claims which are specifically exempted by the contractor to be set forth therein. Unless otherwise provided in this contract, by State law or otherwise expressly agreed to by the parties to this contract, final payment under this contract or settlement upon termination of this contract shall not constitute a waiver of the owner's claims against the contractor or his sureties under this contract or applicable performance and payment bonds.

**United States Environmental Protection Agency
Region 6**

Policy for Bypass During Construction

It is a violation of an NPDES permit to bypass any part of a collection system or treatment plant. Such violations are subject to the enforcement provisions of Section 309 of the Clean Water Act. Under extreme circumstances, bypassing can sometimes be employed for short periods, but only after thorough review and authorization by the regulatory agency.

NPDES regulations and permits prohibit the diversion of wastes from any portion of the treatment facility unless:

- I. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage; or
2. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
3. The Permittee submits prior notice of an anticipated bypass, if possible, at least ten days before the date of the bypass.

The regulatory agency may authorize an anticipated bypass after considering its adverse effects, if it determines that it will meet the above conditions.

-) The construction sequence must be such that wastes are provided a minimum of secondary treatment, or the equivalent for industrial treatment facilities during all phases of construction unless more stringent treatment levels are required by the state agency; or
- 2) The facility must maintain compliance with interim limitations set by the regulatory agency based on plant performance.
- 3) Disinfection is to be utilized if required to protect public health.

CROSS-CUTTING FEDERAL AUTHORITIES

Environmental Authorities

- National Environmental Policy Act, Pub. L. No. 91-190 (1970), 42 U.S.C. § 4321 *et. seq.*
- Executive Order 11593, Protection and Enhancement of the Cultural Environment
- Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended
- Wilderness Act, Pub. L. 88-577, as amended
- **Historic Resources**
 - National Historic Preservation Act, Pub L. 89-665, as amended, 80 Stat. 917 (1966), 16 U.S.C. § 470 *et. seq.*
 - Archeological and Historic Preservation Act, Pub. L. 93-291 (1974), 16 U.S.C. § 469a-1
- **Environmentally Sensitive Lands**
 - Protection of Wetlands, Executive Order 11990 (1977), as amended by Executive Order 12608 (1997)
 - Floodplain Management, Executive Order 11988 (1977), as amended by Executive Order 12148 (1979)
 - Farmland Protection Policy Act, Pub. L. 97-98 (1981), 7 U.S.C. § 4201 *et. seq.*
- **Coastal Area Protection**
 - Coastal Zone Management Act, Pub. L. 92-583 (1972), as amended, 16 U.S.C. § 1451 *et. seq.*
 - Coastal Barriers Resources Act, Pub. L. 97-348, 96 Stat. 1653 (1982), 16 U.S.C. § 3501 *et. seq.*
- Wild and Scenic Rivers Act, Pub. L. 90-542, 82 Stat. 913 (1968), 16 U.S.C. § 1271 *et. seq.*
- Endangered Species Act, Pub. L. 93-205 (1973), as amended, 16 U.S.C. § 1531 *et. seq.*
- Essential Fish Habitat Consultation Process under the Magnuson-Stevens Fishery Conservation and Management Act, Pub. L. 94-265 (1976), as amended, 16 U.S.C. § 1801 *et. seq.*
- Clean Air Act Conformity, Pub. L. 95-95 (1977), as amended, 42 U.S.C. § 7401 *et. seq.*
- Safe Drinking Water Act, Pub. L. 93-523 (1974), as amended, 42 U.S.C. 300f *et. seq.*

Social Policy Authorities

Civil Rights Laws (i.e., Super Cross-Cutters)

- Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d
- Section 13 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. § 1251
- Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794
- The Drug-Free Workplace Act of 1988, Pub. L. 100-690
- The Age Discrimination Act of 1975, 42 U.S.C. § 6102

- Equal Employment Opportunity, Executive Order 11246 (1965)

Disadvantage Business Enterprise Provisions

- Promoting the use of Small, Minority, and Women-Owned Businesses, Executive Orders 11625, 12138 and 12432
- Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590
- Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 1993 Pub. L. 102-389

Economic and Miscellaneous Authorities

Prohibitions Relating to Violators of the Clean Air Act and the Clean Water Act with Respect to Federal Contracts, Grants, or Loans

- Executive Order No. 11738 (1973)
- Section 306 of the Clean Air Act, 42 U.S.C. § 7606, and
- Section 508 of the Clean Water Act, 33 U.S.C. § 1368
- Debarment and Suspension, Executive Order 12549 (1986)
- New Restriction on Lobbying, Section 319 of Pub. L. 101-121
- Demonstration Cities and Metropolitan Development Act, Pub. L. 89-754 (1966), as amended, 42 U.S.C. § 3331 *et. seq.*
- Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646 (1971), as amended, 42 U.S.C. §§ 4601-4655
- Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects Executive Order 13202 (2001), as amended by Executive Order 13208 (2001)

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STATE OF NEW MEXICO
NEW MEXICO DEPARTMENT OF
WORKFORCE SOLUTIONS
Labor Relations Division
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PUBLIC WORKS PROJECT REQUIREMENTS

As a participant in a Public Works project valued at more than \$60,000 in the State of New Mexico, the following list addresses many of the responsibilities that are defined by statute or regulation to each project stakeholder.

Contracting Agency

- Ensure that all Contractors wishing to bid on a Public Works project when the project is \$60,000 or more are actively registered with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> (Contractor Registration) prior to bidding.
- Please submit Notice of Award (NOA) and Subcontractor List(s) to the PWAA website promptly after the project is awarded.
- Please update the Subcontractor List(s) on the PWAA website whenever changes occur.

General Contractor

- Provide a complete Subcontractor List and Statements of Intent (SOI) to pay Prevailing Wages for each Contractor to the Contracting Agency within 3 (three) days of award.
- Ensure that all Subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Submit bi-weekly certified payrolls to the Contracting Agency.
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- Confirm the Wage Rate poster, provided in PWAA, is displayed at the job site in an easily accessible place.
- Make sure, when a project has been completed, the Affidavits of Wages Paid (AWP) is sent to the Contracting Agency.

Subcontractor

- Ensure that all Subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Submit bi-weekly certified payrolls to the General Contractor(s).



STATE OF NEW MEXICO
NEW MEXICO DEPARTMENT OF
WORKFORCE SOLUTIONS
Labor Relations Division
121 Tijeras Ave NE, Suite 3000
Albuquerque, NM 87102
www.dws.state.nm.us

- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.

Additional Information

Reference material and forms may be found at New Mexico Department of Workforce Solutions Public Works web pages at: http://www.dws.state.nm.us/new/Labor_Relations/publicworks.html.

CONTACT INFORMATION

Contact the Labor Relations Division for any questions relating to Public Works projects by email at public.works@state.nm.us or call (505) 841-4400.



STATE OF NEW MEXICO
NEW MEXICO DEPARTMENT OF
WORKFORCE SOLUTIONS
Labor Relations Division,
121 Tijeras Ave NE, Suite 3000
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Wage Decision Approval Summary

1) Project Title: Aztec Sanitary Sewer Interceptor Improvements
Requested Date: 03/03/2016
Approved Date: 03/04/2016
Approved Wage Decision Number: SJ-16-0418-A

Wage Decision Expiration Date for Bids: 07/02/2016

2) Physical Location of Jobsite for Project:
Job Site Address: 610 Western Drive
Job Site City: Aztec
Job Site County: San Juan

3) Contracting Agency Name (Department or Bureau): CITY OF AZTEC
Contracting Agency Contact's Name: Kathleen Lamb
Contracting Agency Contact's Phone: (505) 334-7653 Ext.

4) Estimated Contract Award Date: 06/01/2016

5) Estimated total project cost: \$5,000,000.00
a. Are any federal funds involved?: Yes - \$2,500,000.00
b. Does this project involve a building?: No
c. Is this part of a larger plan for construction on or appurtenant to the property that is subject to this project?: No
d. Are there any other Public Works Wage Decisions related to this project?: No
e. What is the ultimate purpose or functional use of the construction once it is completed?: Sanitary Sewer Inteceptor

6) Classifications of Construction:

Classification Type and Cost Total	Description
Highway/Utilities (A) Cost: \$5,000,000.00	Contract a 24" sanitary sewer interceptor, complete

TYPE "A" - STREET, HIGHWAY, UTILITY & LIGHT ENGINEERING

Effective January 1, 2016

Trade Classification	Base Rate	Fringe Rate
Bricklayer/Blocklayer/Stonemason	23.32	8.04
Carpenter/Lather	23.40	9.02
Cement Mason	17.11	6.32
Ironworker	26.50	14.32
Painter (Brush/Roller/Spray)	16.00	5.58
Electricians (outside)		
Groundman	21.28	10.53
Equipment Operator	30.54	12.94
Lineman/Wireman or Tech	35.94	14.34
Cable Splicer	39.52	15.28
Plumber/Pipefitter	28.30	4.07
Laborers		
Group I	12.20	5.30
Group II	12.50	5.30
Group III	12.90	5.30
Operators		
Group I	16.69	6.16
Group II	17.44	6.16
Group III	17.55	6.16
Group IV	17.63	6.16
Group V	17.75	6.16
Group VI	17.89	6.16
Group VII	18.27	6.16
Group VIII	18.50	6.16
Group IX	25.45	6.16
Group X	28.35	6.16
Truck Drivers		
Group I	13.32	0.26
Group II	13.52	0.26
Group III	13.72	0.26
Group IV	13.92	0.26

NOTE: SUBSISTENCE, ZONE AND INCENTIVE PAY APPLY ACCORDING TO THE PARTICULAR TRADES COLLECTIVE BARGAINING AGREEMENT. DETAILS ARE LOCATED AT WWW.DWS.STATE.NM.US.

General Decision Number: NM160049 01/08/2016 NM49

Superseded General Decision Number: NM20150049

State: New Mexico

Construction Type: Highway

Counties: Dona Ana and San Juan Counties in New Mexico.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016

ELEC0611-003 07/01/2014

	Rates	Fringes
ELECTRICIAN (Boom Operator).....	\$ 29.79	12.74

* TEAM0492-003 04/01/2014

SAN JUAN

	Rates	Fringes
TRUCK DRIVER (Dump).....	\$ 14.65	6.20

SUNM2011-003 08/25/2011

	Rates	Fringes
CARPENTER (Includes Form Work)		
Dona Ana.....	\$ 14.15	0.44
San Juan.....	\$ 13.42	0.44
CEMENT MASON/CONCRETE FINISHER...	\$ 13.65	0.26

ELECTRICIAN (Includes Traffic

Signalization and
Installation)

Dona Ana.....	\$ 25.91	9.45
San Juan.....	\$ 24.46	8.56

HIGHWAY/PARKING LOT STRIPING:

Includes Highway Line/Parking

Lot Line Striping and Line

Striping Truck Driver

Dona Ana.....	\$ 15.44	0.35
San Juan.....	\$ 14.39	0.35

IRONWORKER, REINFORCING

Dona Ana.....	\$ 22.61	6.03
San Juan.....	\$ 16.41	5.85

LABORER

Common or General

Dona Ana.....	\$ 11.95	0.35
San Juan.....	\$ 11.48	0.35

Flagger/Cone Setter.....	\$ 14.27	0.35
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Mason Tender-

Cement/Concrete.....	\$ 10.25	0.35
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Pipelayer.....	\$ 17.13	5.04
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POWER EQUIPMENT OPERATOR:

Backhoe/Excavator/Trackhoe

Dona Ana.....	\$ 17.74	0.26
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San Juan.....	\$ 16.27	1.51
---------------	----------	------

Bobcat/Skid Loader.....	\$ 14.56	0.26
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Broom Sweeper.....	\$ 16.67	1.57
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Grader/Blade.....	\$ 17.64	1.51
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Loader(Front End).....	\$ 16.53	0.26
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Mechanic.....	\$ 23.24	1.51
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Oiler.....	\$ 22.08	8.72
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Piledriver.....	\$ 16.26	0.26
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Roller (Asphalt and Dirt)

Dona Ana.....	\$ 16.27	1.51
---------------	----------	------

San Juan.....	\$ 12.91	1.60
---------------	----------	------

Trencher

Dona Ana.....	\$ 15.22	0.26
---------------	----------	------

San Juan.....	\$ 15.93	0.26
---------------	----------	------

TRUCK DRIVER

Dump Truck

Dona Ana.....	\$ 15.04	0.26
---------------	----------	------

Flatbed Truck.....	\$ 13.30	0.26
--------------------	----------	------

Pickup Truck

Dona Ana.....	\$ 12.14	0.26
---------------	----------	------

San Juan.....	\$ 12.95	0.26
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Water Truck.....	\$ 13.51	1.51
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WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate

that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

☐



STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

Susana Martinez
Governor

September 12, 2013

Carole Graham
Woods Canyon Archaeological Consultants, Inc.
carole@woodscanyon.net

RE: Monitoring Plan for the City of Aztec's Planned Sewer Outfall Line

Dear Ms. Graham:

Thank you for providing the State Historic Preservation Office (SHPO) with a copy of the above referenced monitoring plan. I have reviewed the plan and find that it conforms to the Cultural Properties Review Committee's rule 4.10.17, Standards for Monitoring. The monitoring portion of Woods Canyon Archaeological Consultant's General Archaeological Investigation Permit (NM-13-037-M) is activated and monitoring may proceed as outlined in the plan.

Please do not hesitate to contact me if you have any questions. I can be reached by telephone at (505)827-4064 or by email at michelle.ensey@state.nm.us.

Sincerely,

Michelle M. Ensey
Archaeologist

Log: 97649
Cc: Genevieve Head, NMDOT

**MONITORING PLAN FOR THE CITY OF AZTEC'S PLANNED SEWER OUTFALL LINE
SAN JUAN COUNTY, NEW MEXICO**

**By
Carole Graham**

**Woods Canyon Archaeological Consultants, Inc.
206 North Washington Street
Cortez, Colorado 81321
Jerry Fetterman, Principal Investigator**

Prepared for:

SME Environmental, Inc.
679 E. 2nd Ave., Unit E2
Durango, Colorado 81301

On behalf of:

City of Aztec
303 South Ash Street
Aztec, New Mexico 87410

Agencies:

New Mexico State Historic Preservation Office

New Mexico Environment Department

**New Mexico Department of Transportation-
Environmental Design Division**

Under authority of:

State of New Mexico
Permit Number: 13-037-S

September 2013

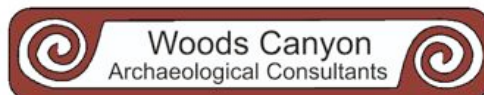


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INTRODUCTION

SME Environmental Consultants, Inc. (SME), of Durango, Colorado has contracted Woods Canyon Archaeological Consultants, Inc. (WCAC), of Cortez, Colorado to prepare this archaeological monitoring plan for the City of Aztec's planned Aztec Sewer Outfall Line project. The construction project is supported by state funding from the New Mexico Environment Department.

In 2012, SME contracted El Morro CRM, LLC to conduct a cultural resource inventory to identify historic properties within or adjacent to the area of potential effect (APE), assess their eligibility for listing on the National Register of Historic Places (NRHP), and to make recommendations concerning potential effects to the properties, in compliance with the New Mexico Cultural Properties Act [18-6-1 NMSA], to the State Historic Preservation Office (SHPO). As a result of this inventory, one prehistoric site (LA 15235) and two historic sites, the Elledge Mill Ditch (LA 68214) and the Chaco Street bridge (LA 122905), were identified in the project APE. Additionally, two prehistoric sites were identified outside, but near the project APE (LA15185 and LA15186) (Murrell 2012).

Although the two historic properties, LA 68214 and LA 122905, are NHRP-eligible and are located in the APE, they will be avoided by construction; no archaeological monitoring has been recommended for these two sites. However, as mentioned in the inventory report (Murrell 2012:12), a buried kiva was encountered in 1928, during initial construction for the Chaco Street bridge (LA 122905). This resulted in the bridge site being moved to its present location. Although the original bridge location is currently unknown, it and that of the kiva must be in the immediate vicinity, if it was on the north side of the river. Murrell recommended archaeological monitoring of ground-disturbing activity in this area.

Additionally, because the NRHP-eligibility of prehistoric sites LA 15235, LA15185, and LA15186 remains unevaluated, and because of the potential for unanticipated discoveries during ground disturbing construction activities, these three sites have been recommended for archaeological monitoring during ground-disturbing construction activities for the Aztec Sewer Outfall Line project (Murrell 2012:13).

STATEMENT OF PURPOSE

Archaeological monitoring of the Aztec Sewer Outfall Line project is intended to identify buried cultural deposits during initial ground-disturbances related to construction, in order to avoid or minimize adverse impacts. Monitoring also provides the opportunity to implement archaeological data recovery procedures, should significant, unanticipated cultural deposits be encountered.

PROJECT DESCRIPTION

The Aztec Sewer Outfall Line project involves the replacement of sewer line along the north side of the Animas River, between the Aztec Wastewater Treatment Facility on S. Oliver Street and the Chaco Street bridge, traversing private and municipal property, as well as New Mexico Department of Transportation (NMDOT) right-of-way, within the jurisdiction of the City of Aztec (see Map 1, Appendix A). Proposed for construction is 7,188 feet (2,191 m) of new sewer line, within a 60-foot wide (18 m) easement. The replacement sewer line will be installed within the easement of the existing sewer line, which it will replace. As much as 60% the new line would be bored underground to avoid surface resources and excessive disturbance of the surface. Construction of the sewer line will require right-of-way clearing, the development of temporary use areas within the easement, trenching and boring, and the laying, testing, and backfilling of pipe. Mechanical equipment will be used through all phases of construction.

SITE DESCRIPTIONS

LA 15185

Minimal documentation exists for prehistoric site LA 15185, located to the north of the Highway 550 river crossing, on private property just above the Animas River floodplain (see Map 3, Appendix A). In the February 11, 1977 recording by Charlie Steen, the site was described as “a large cobblestone masonry ruin, probably about 100 rooms” with Mesa Verde Black-on-white pottery present. Steen mentioned that a house had been present on the rubble mound for many years, but had been pulled down or had collapsed and only foundations remained. At the time, the site appeared to be largely destroyed by a housing development and cut through by a county road. The architecture and artifacts described by Steen suggest site LA 15185 dates to the Pueblo III period of Anasazi prehistory. The current extent and condition of the site is unknown; a number of modern buildings are presently in the site’s approximate location. Site LA 15185 is unevaluated for NRHP-eligibility.

Site LA 15185, as plotted, is located roughly 292 feet (89 m) north of proposed manhole #25, at the east end of the proposed sewer line route. Although the site’s plotted location is much farther than the 100 feet stipulated in the monitoring recommendations, the site’s extent was never accurately mapped and it is possible that the site extended much further to the south and is now buried. It is for this reason that monitoring of ground disturbances was recommended for this project.

LA 15186

Minimal documentation exists for prehistoric site LA 15186, located on private property southwest of the Chaco Street bridge, just above the Animas River floodplain (see Map 3, Appendix A). In the February 11, 1977 recording by Charlie Steen, the site was described as a rubble mound with Mesa Verde Black-on-white pottery present. The size of the site was not estimated. A house, associated with an apartment complex, had been built on top of the rubble mound. The artifacts described by Steen suggest the site dates to the Pueblo III period of Anasazi prehistory. As Steen described, a house presently occupies the approximate location of the site. Site LA 15186 is unevaluated for NRHP-eligibility; the site’s current extent and condition are unknown.

Site LA 15186 is located roughly 322 feet (98 m) north of proposed manhole #21. Although the site’s plotted location is much farther than the 100 feet stipulated in the monitoring recommendations, the site’s extent was never accurately mapped and it is possible that the site extended much further to the south and is now buried. It is for this reason that monitoring of ground disturbances was recommended for this project.

LA 15235

Minimal documentation exists for prehistoric site LA 15235, which is located within the City of Aztec’s Wastewater Treatment Facility, on the Animas River floodplain (see Map 2, Appendix A). When documented in 1977, by Charlie Steen, the site consisted of architectural rubble (cobblestone masonry) and a scatter of flaking debris and pottery sherds, dating to the Pueblo III period of Anasazi prehistory. Steen related that the site had been destroyed by farming and sewage plant operations, with only a few sherds, stone artifacts, and sandstone remaining. When the site was revisited in advance of proposed improvements to the wastewater treatment facility by archaeologists from Marron and Associates, the site was not relocated. It was believed that the site had been misplotted or destroyed and no treatment plan was prepared (Quirolo and Brown 2007). However, during construction activity, prehistoric human remains and a few artifacts were encountered. Aztec Archaeological Consultants performed the data recovery (Rude 2010). During the inventory for the sewer line replacement project, no evidence of the site was observed (Murrell 2012:7). The areal extent of the site’s surface manifestation is unknown. Site LA 15235 is unevaluated for NRHP-eligibility.

Site LA 15235 is located in the Wastewater Treatment Facility, at the west end of the proposed sewer line replacement project.

PERSONNEL

Fieldwork for this monitoring project will be conducted by Trisha Rude and by Jerry Fetterman, principal investigator.

MONITORING & DISCOVERY PLAN

Monitoring & Discovery

WCAC archaeologists will monitor initial ground disturbance activity within the boundaries of LA 15235 and the Aztec Wastewater Treatment Facility. Although there are no known prehistoric sites documented in the easement for the planned replacement sewer line route beyond the wastewater treatment facility, WCAC archaeologists will also inspect open trench in the vicinity of sites LA 15185 and LA 15186, between proposed manholes #21 and #25, a distance of 997 feet (304 m). This will ensure that significant buried cultural deposits in this area are identified, documented, and recovered, if encountered.

If cultural deposits are encountered, the WCAC archaeologist will alert the construction crew to halt construction activity in that area, while the deposits are documented and mapped with a GPS. Should significant cultural deposits be encountered, the archaeologist will contact SHPO staff for direction on treatment of the resource. Avoidance of the cultural deposits is the preferred option, but if this is not feasible, data recovery measures will be undertaken. If necessary, arrangements will be made to safeguard the discovery.

Should human remains be discovered, the regulations outlined in 4.10.11 NMAC will be followed. The Aztec Police Department will be notified and will contact the state Medical Investigator and the SHPO. WCAC possesses an annual permit for the removal of human burials (ABE 13-037) and will excavate the remains if directed to do so.

Data Recovery

The locations of artifacts and features will be documented with a GPS prior to excavation or collection. Cultural materials and deposits will also be documented with digital photographs. If appropriate, a site grid will be established for artifact collection and excavation purposes. All excavation of cultural deposits will be conducted by hand. Hand excavation will be carried out with shovel, trowel, brush, and/or dental pick depending on the complexity and fragility of the resource. Excavation will be done in natural stratigraphic levels when stratigraphy is present, and in arbitrary levels when stratigraphy is not present. Primary cultural fill will be screened through 1/4-inch mesh, and in certain instances, through 1/8-inch mesh.

Excavations will be documented using a PD (provenience designation) system that Woods Canyon has used for 20 years. Since 2005, this system has been managed on laptop computers in the field. The PD system spatially tracks work across the site and is managed in a database that is entered into GIS. Once in GIS, patterns in the data can be analyzed and this streamlines report preparation. Artifacts collected from excavation are tied to this PD system through the use of bar codes that can be scanned in the field, checked into the laboratory, and be tracked throughout the analysis and curation process. The use of barcodes saves numerous hours of writing and re-writing sample bag information and field inventory lists, typing of inventory data and artifact analysis, and inevitable data checking and rechecking that typically accompanies archaeological excavation projects.

All features will be horizontally defined, sectioned, excavated, and sampled as appropriate. They will be documented with digital photographs, and plan and profile maps. Bulk soil, pollen, dendrochronological, and macrobotanical samples will be collected as appropriate. Information will be recorded on Woods Canyon's provenience description, feature, photograph, point location, and sample forms. All data will be managed through photograph, artifact, and sample inventory logs.

Artifacts and samples collected during excavation will be separated according to class/type, bagged, labeled, and inventoried for transport to WCAC's laboratory where they will be processed and either readied for in-house analysis or sent on to analysts or specialized labs for further analysis.

Laboratory and Analysis

Processing

Following excavation, all recovered cultural materials will be brought back to the Woods Canyon laboratory for processing and analysis. The field inventory forms will be compared to the laboratory inventory forms for discrepancies, any discrepancies will be corrected and then information on the inventoried materials will be entered into a computer data base for future artifact tracking. Initial laboratory processing of materials will consist of washing artifacts, organizing them by material classes, and labeling and bagging materials according to the curatorial standards of the Museum of Indian Arts and Culture, Laboratory of Anthropology, with whom WCAC has a curation agreement. Samples collected for special analysis (e.g., dendrochronological, pollen, faunal) will be separated into types and readied for shipment to the appropriate analysts.

Table 1. Laboratory Analyses

Type of Analysis	Analyst
Lithic	Woods Canyon staff
Ceramic	Woods Canyon staff
Faunal	Woods Canyon – Peter Rohman
Macrobotanical	Woods Canyon - Trisha Rude
Pollen	Northern Arizona University
Radiocarbon	Beta Analytic
Dendrochronological	University of Arizona Tree Ring Lab
Archaeomagnetic	Colorado State University

Lithic Analysis

For chipped stone and ground stone tools, an analysis of stylistic, functional and morphological attributes will be undertaken as well as material and source analysis. For lithic debris, data will be collected concerning the level and type of reduction, and the type of lithic parent material and its possible source (exotic or local).

Ceramic Analysis

Analysis of ceramic materials will be conducted to allow for a better understanding of site chronology, technology and extra-regional relations. To this end, data will be collected concerning the typological attributes of the ceramic artifacts (Chapin Gray, Piedra Black-on-white, etc.), the functional aspects and behavioral interpretations of the artifacts (jars vs. bowls - storage and cooking vs. consumption), and originating source of the artifact or parent material (temper and clay constituents as well as trade wares). To investigate clay provenance and for comparison with other ceramic studies in the area, a sample of ceramics will be sent for neutron activation analysis.

Faunal Analysis

All faunal materials recovered from excavation will be submitted for analysis. Analysis will address the kinds of animals exploited, the seasonality of procurement, processing techniques, and distribution patterns within each site. In addition, data on the use of faunal materials for tools will be recorded and analyzed with regard to function, manufacturing techniques and use wear.

Macrobotanical and Pollen Analysis

Macrobotanical remains and pollen analysis will be oriented toward determining the types of plants utilized, the relative importance of each plant, processing techniques, and distribution within the site.

Special Chronometric Studies

Several chronometric studies will be conducted to help define the exact time of the sites occupation. These studies consist of dendrochronological, archaeomagnetic, obsidian hydration, and radiocarbon dating.

Curation

Artifacts and relevant documentation will be curated at the Museum of Indian Arts and Culture, Laboratory of Anthropology, in Santa Fe, New Mexico.

SCHEDULE

The schedule for archaeological monitoring is subject to that of the City of Aztec and its construction contractors. WCAC will submit a monitoring report four weeks after monitoring has concluded. Should there be discovery of significant cultural resources, including human burials, this report will be preliminary. In-house analyses of excavated materials will be completed in six months, but artifacts and samples submitted for outside analysis may take six months to two years to complete, depending on the study. WCAC will submit a final report three months after the completion of all analyses.

REFERENCES CITED

Murrell, Jesse

2012 *Cultural Resource Inventory for the City of Aztec Sewer Outfall Line in San Juan County, New Mexico*. Report No. 2012-SME-01. El Morro CRM, Farmington, New Mexico.

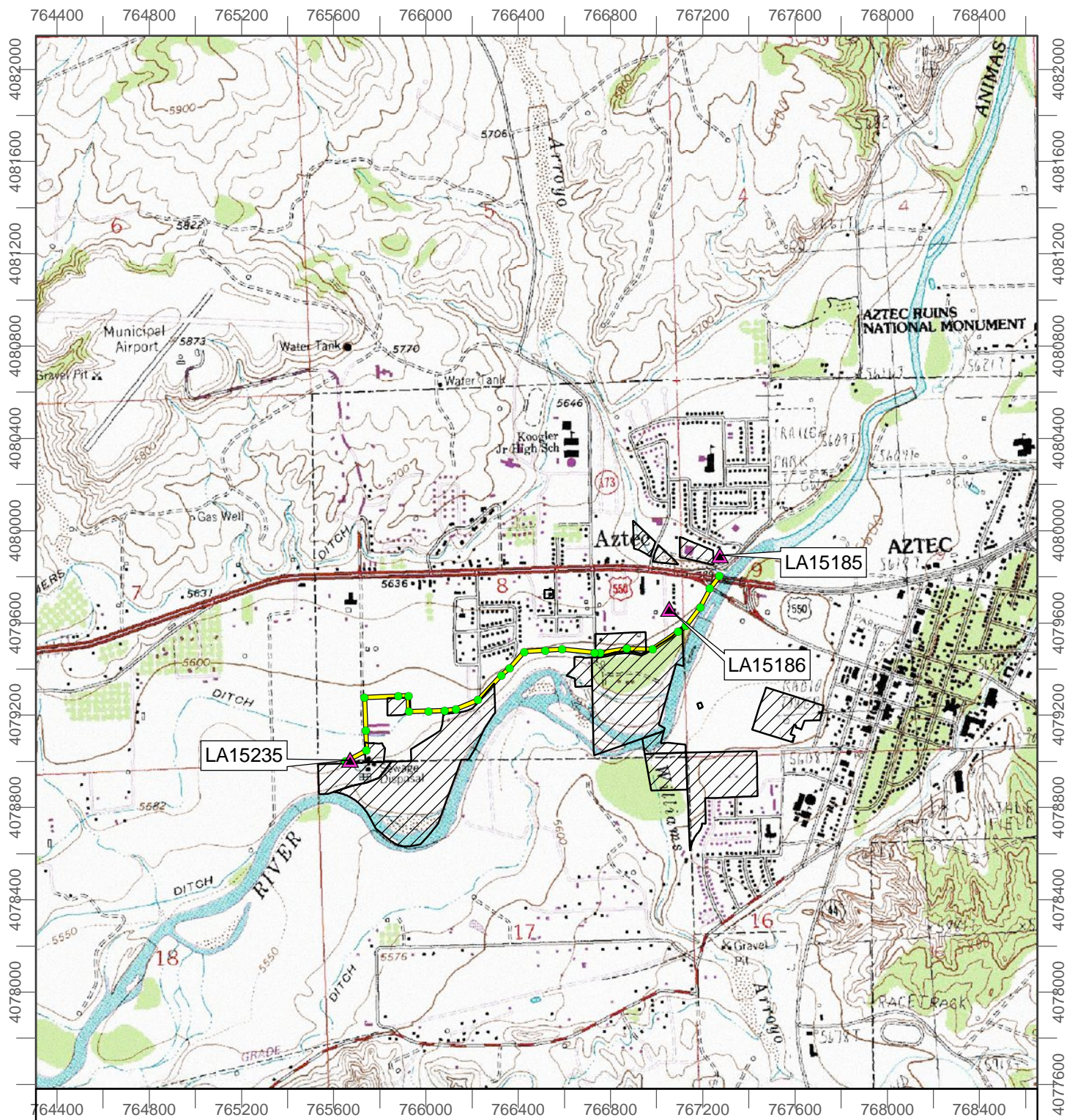
Quirolo, Mary and Kenneth K. Brown

2007 Cultural Resource Report for a Class I and Class III Survey of 0.3 ha (0.7 ac) for Proposed Improvements at the Aztec Wastewater Facility, Aztec, San Juan County, New Mexico.

Rude, Trisha

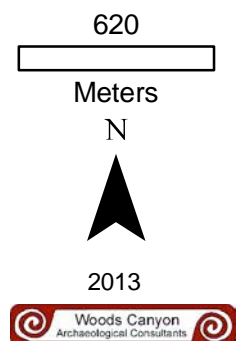
2010 Disposition of the Waste Water Plant Discovery in the City of Aztec, San Juan County, New Mexico. Report No. 2010-066. Aztec Archaeological Consultants, Aztec, New Mexico.

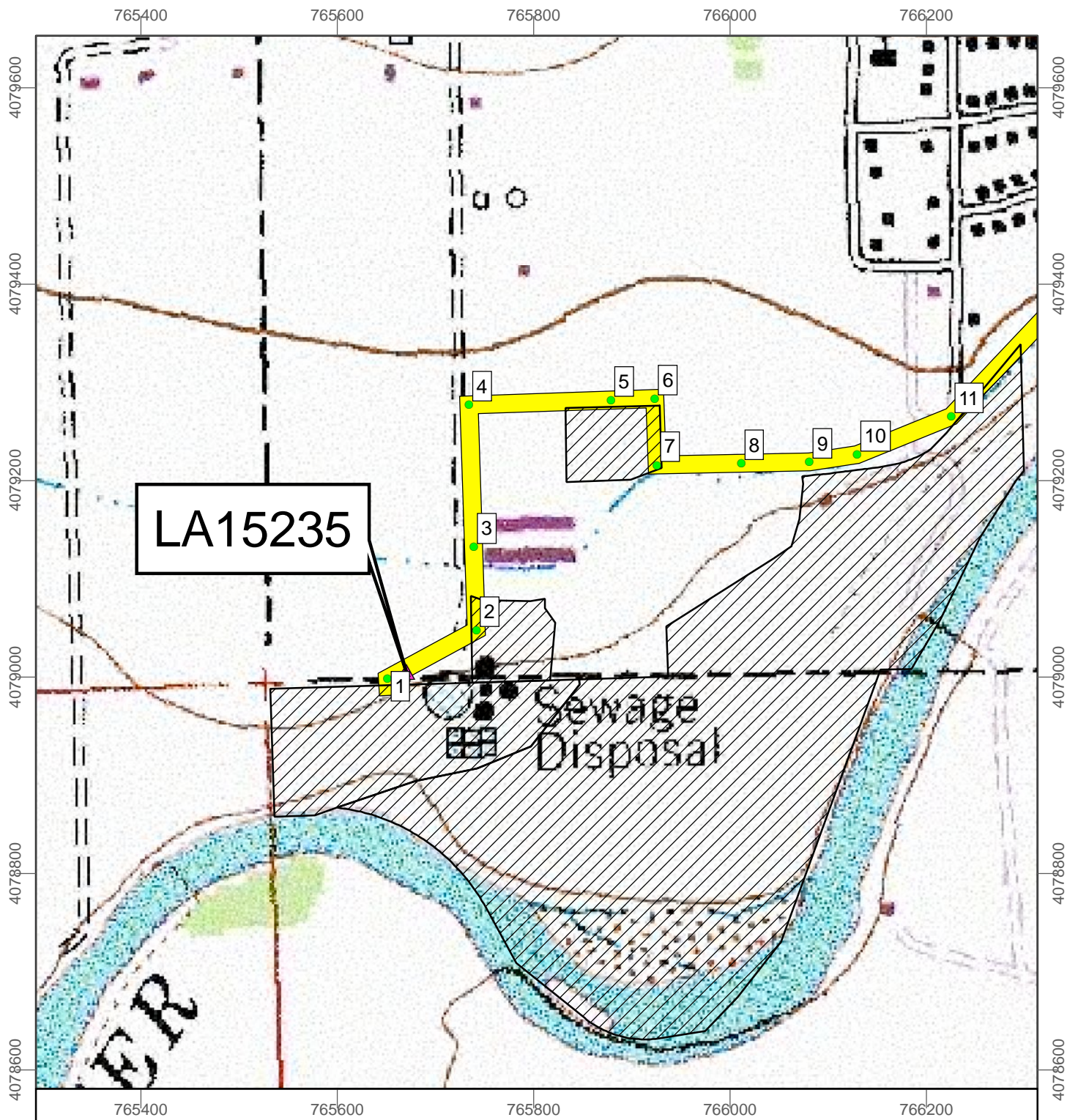
APPENDIX A: PROJECT MAPS



Aztec Sewer Outfall Line Project

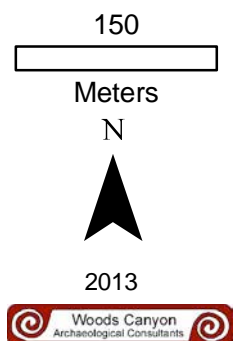
- Proposed Manholes
- Proposed 60ft Easement
- ▲ Site to be monitored
- Aztec City Property

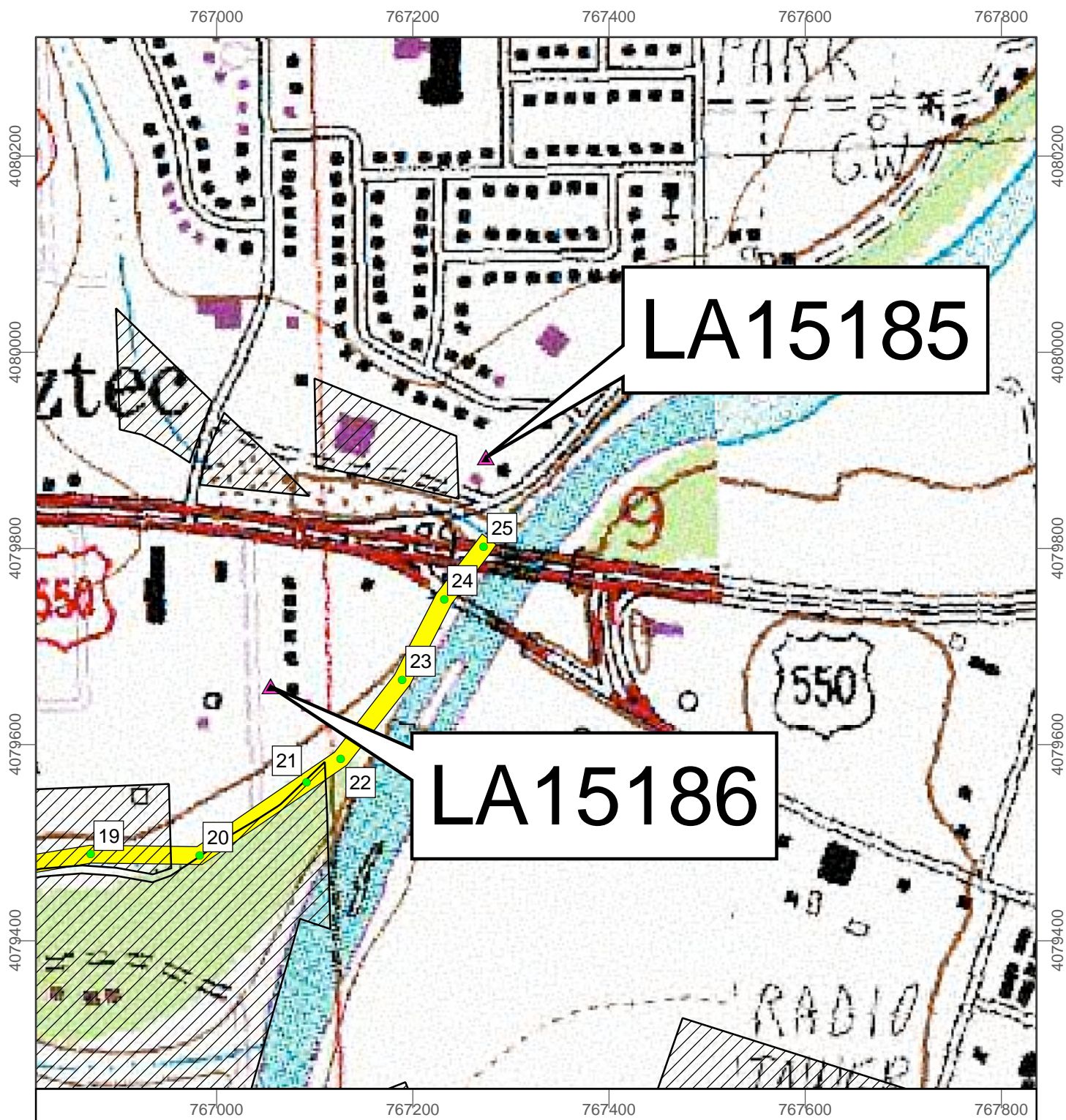




Aztec Sewer Outfall Line Project

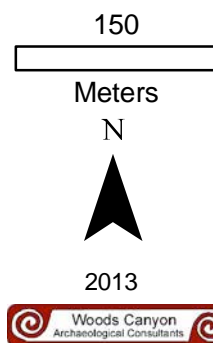
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- Aztec City Property





Aztec Sewer Outfall Line Project

- Proposed Manholes
- Proposed 60ft Easement
- ▲ Site to be monitored
- Aztec City Property



Signalization and
Installation)

Dona Ana.....	\$ 25.91	9.45
San Juan.....	\$ 24.46	8.56

HIGHWAY/PARKING LOT STRIPING:

Includes Highway Line/Parking
Lot Line Striping and Line
Striping Truck Driver

Dona Ana.....	\$ 15.44	0.35
San Juan.....	\$ 14.39	0.35

IRONWORKER, REINFORCING

Dona Ana.....	\$ 22.61	6.03
San Juan.....	\$ 16.41	5.85

LABORER

Common or General

Dona Ana.....	\$ 11.95	0.35
San Juan.....	\$ 11.48	0.35
Flagger/Cone Setter.....	\$ 14.27	0.35
Mason Tender-		
Cement/Concrete.....	\$ 10.25	0.35
Pipelayer.....	\$ 17.13	5.04

POWER EQUIPMENT OPERATOR:

Backhoe/Excavator/Trackhoe

Dona Ana.....	\$ 17.74	0.26
San Juan.....	\$ 16.27	1.51
Bobcat/Skid Loader.....	\$ 14.56	0.26
Broom Sweeper.....	\$ 16.67	1.57
Grader/Blade.....	\$ 17.64	1.51
Loader(Front End).....	\$ 16.53	0.26
Mechanic.....	\$ 23.24	1.51
Oiler.....	\$ 22.08	8.72
Piledriver.....	\$ 16.26	0.26
Roller (Asphalt and Dirt)		
Dona Ana.....	\$ 16.27	1.51
San Juan.....	\$ 12.91	1.60
Trencher		
Dona Ana.....	\$ 15.22	0.26
San Juan.....	\$ 15.93	0.26

TRUCK DRIVER

Dump Truck

Dona Ana.....	\$ 15.04	0.26
Flatbed Truck.....	\$ 13.30	0.26
Pickup Truck		
Dona Ana.....	\$ 12.14	0.26
San Juan.....	\$ 12.95	0.26
Water Truck.....	\$ 13.51	1.51

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate

that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

☐



STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

Susana Martinez
Governor

September 12, 2013

Carole Graham
Woods Canyon Archaeological Consultants, Inc.
carole@woodscanyon.net

RE: Monitoring Plan for the City of Aztec's Planned Sewer Outfall Line

Dear Ms. Graham:

Thank you for providing the State Historic Preservation Office (SHPO) with a copy of the above referenced monitoring plan. I have reviewed the plan and find that it conforms to the Cultural Properties Review Committee's rule 4.10.17, Standards for Monitoring. The monitoring portion of Woods Canyon Archaeological Consultant's General Archaeological Investigation Permit (NM-13-037-M) is activated and monitoring may proceed as outlined in the plan.

Please do not hesitate to contact me if you have any questions. I can be reached by telephone at (505)827-4064 or by email at michelle.ensey@state.nm.us.

Sincerely,

Michelle M. Ensey
Archaeologist

Log: 97649
Cc: Genevieve Head, NMDOT

**MONITORING PLAN FOR THE CITY OF AZTEC'S PLANNED SEWER OUTFALL LINE
SAN JUAN COUNTY, NEW MEXICO**

**By
Carole Graham**

**Woods Canyon Archaeological Consultants, Inc.
206 North Washington Street
Cortez, Colorado 81321
Jerry Fetterman, Principal Investigator**

Prepared for:

SME Environmental, Inc.
679 E. 2nd Ave., Unit E2
Durango, Colorado 81301

On behalf of:

City of Aztec
303 South Ash Street
Aztec, New Mexico 87410

Agencies:

New Mexico State Historic Preservation Office

New Mexico Environment Department

**New Mexico Department of Transportation-
Environmental Design Division**

Under authority of:

State of New Mexico
Permit Number: 13-037-S

September 2013

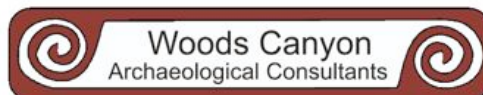


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INTRODUCTION

SME Environmental Consultants, Inc. (SME), of Durango, Colorado has contracted Woods Canyon Archaeological Consultants, Inc. (WCAC), of Cortez, Colorado to prepare this archaeological monitoring plan for the City of Aztec's planned Aztec Sewer Outfall Line project. The construction project is supported by state funding from the New Mexico Environment Department.

In 2012, SME contracted El Morro CRM, LLC to conduct a cultural resource inventory to identify historic properties within or adjacent to the area of potential effect (APE), assess their eligibility for listing on the National Register of Historic Places (NRHP), and to make recommendations concerning potential effects to the properties, in compliance with the New Mexico Cultural Properties Act [18-6-1 NMSA], to the State Historic Preservation Office (SHPO). As a result of this inventory, one prehistoric site (LA 15235) and two historic sites, the Elledge Mill Ditch (LA 68214) and the Chaco Street bridge (LA 122905), were identified in the project APE. Additionally, two prehistoric sites were identified outside, but near the project APE (LA15185 and LA15186) (Murrell 2012).

Although the two historic properties, LA 68214 and LA 122905, are NHRP-eligible and are located in the APE, they will be avoided by construction; no archaeological monitoring has been recommended for these two sites. However, as mentioned in the inventory report (Murrell 2012:12), a buried kiva was encountered in 1928, during initial construction for the Chaco Street bridge (LA 122905). This resulted in the bridge site being moved to its present location. Although the original bridge location is currently unknown, it and that of the kiva must be in the immediate vicinity, if it was on the north side of the river. Murrell recommended archaeological monitoring of ground-disturbing activity in this area.

Additionally, because the NRHP-eligibility of prehistoric sites LA 15235, LA15185, and LA15186 remains unevaluated, and because of the potential for unanticipated discoveries during ground disturbing construction activities, these three sites have been recommended for archaeological monitoring during ground-disturbing construction activities for the Aztec Sewer Outfall Line project (Murrell 2012:13).

STATEMENT OF PURPOSE

Archaeological monitoring of the Aztec Sewer Outfall Line project is intended to identify buried cultural deposits during initial ground-disturbances related to construction, in order to avoid or minimize adverse impacts. Monitoring also provides the opportunity to implement archaeological data recovery procedures, should significant, unanticipated cultural deposits be encountered.

PROJECT DESCRIPTION

The Aztec Sewer Outfall Line project involves the replacement of sewer line along the north side of the Animas River, between the Aztec Wastewater Treatment Facility on S. Oliver Street and the Chaco Street bridge, traversing private and municipal property, as well as New Mexico Department of Transportation (NMDOT) right-of-way, within the jurisdiction of the City of Aztec (see Map 1, Appendix A). Proposed for construction is 7,188 feet (2,191 m) of new sewer line, within a 60-foot wide (18 m) easement. The replacement sewer line will be installed within the easement of the existing sewer line, which it will replace. As much as 60% the new line would be bored underground to avoid surface resources and excessive disturbance of the surface. Construction of the sewer line will require right-of-way clearing, the development of temporary use areas within the easement, trenching and boring, and the laying, testing, and backfilling of pipe. Mechanical equipment will be used through all phases of construction.

SITE DESCRIPTIONS

LA 15185

Minimal documentation exists for prehistoric site LA 15185, located to the north of the Highway 550 river crossing, on private property just above the Animas River floodplain (see Map 3, Appendix A). In the February 11, 1977 recording by Charlie Steen, the site was described as “a large cobblestone masonry ruin, probably about 100 rooms” with Mesa Verde Black-on-white pottery present. Steen mentioned that a house had been present on the rubble mound for many years, but had been pulled down or had collapsed and only foundations remained. At the time, the site appeared to be largely destroyed by a housing development and cut through by a county road. The architecture and artifacts described by Steen suggest site LA 15185 dates to the Pueblo III period of Anasazi prehistory. The current extent and condition of the site is unknown; a number of modern buildings are presently in the site’s approximate location. Site LA 15185 is unevaluated for NRHP-eligibility.

Site LA 15185, as plotted, is located roughly 292 feet (89 m) north of proposed manhole #25, at the east end of the proposed sewer line route. Although the site’s plotted location is much farther than the 100 feet stipulated in the monitoring recommendations, the site’s extent was never accurately mapped and it is possible that the site extended much further to the south and is now buried. It is for this reason that monitoring of ground disturbances was recommended for this project.

LA 15186

Minimal documentation exists for prehistoric site LA 15186, located on private property southwest of the Chaco Street bridge, just above the Animas River floodplain (see Map 3, Appendix A). In the February 11, 1977 recording by Charlie Steen, the site was described as a rubble mound with Mesa Verde Black-on-white pottery present. The size of the site was not estimated. A house, associated with an apartment complex, had been built on top of the rubble mound. The artifacts described by Steen suggest the site dates to the Pueblo III period of Anasazi prehistory. As Steen described, a house presently occupies the approximate location of the site. Site LA 15186 is unevaluated for NRHP-eligibility; the site’s current extent and condition are unknown.

Site LA 15186 is located roughly 322 feet (98 m) north of proposed manhole #21. Although the site’s plotted location is much farther than the 100 feet stipulated in the monitoring recommendations, the site’s extent was never accurately mapped and it is possible that the site extended much further to the south and is now buried. It is for this reason that monitoring of ground disturbances was recommended for this project.

LA 15235

Minimal documentation exists for prehistoric site LA 15235, which is located within the City of Aztec’s Wastewater Treatment Facility, on the Animas River floodplain (see Map 2, Appendix A). When documented in 1977, by Charlie Steen, the site consisted of architectural rubble (cobblestone masonry) and a scatter of flaking debris and pottery sherds, dating to the Pueblo III period of Anasazi prehistory. Steen related that the site had been destroyed by farming and sewage plant operations, with only a few sherds, stone artifacts, and sandstone remaining. When the site was revisited in advance of proposed improvements to the wastewater treatment facility by archaeologists from Marron and Associates, the site was not relocated. It was believed that the site had been misplotted or destroyed and no treatment plan was prepared (Quirolo and Brown 2007). However, during construction activity, prehistoric human remains and a few artifacts were encountered. Aztec Archaeological Consultants performed the data recovery (Rude 2010). During the inventory for the sewer line replacement project, no evidence of the site was observed (Murrell 2012:7). The areal extent of the site’s surface manifestation is unknown. Site LA 15235 is unevaluated for NRHP-eligibility.

Site LA 15235 is located in the Wastewater Treatment Facility, at the west end of the proposed sewer line replacement project.

PERSONNEL

Fieldwork for this monitoring project will be conducted by Trisha Rude and by Jerry Fetterman, principal investigator.

MONITORING & DISCOVERY PLAN

Monitoring & Discovery

WCAC archaeologists will monitor initial ground disturbance activity within the boundaries of LA 15235 and the Aztec Wastewater Treatment Facility. Although there are no known prehistoric sites documented in the easement for the planned replacement sewer line route beyond the wastewater treatment facility, WCAC archaeologists will also inspect open trench in the vicinity of sites LA 15185 and LA 15186, between proposed manholes #21 and #25, a distance of 997 feet (304 m). This will ensure that significant buried cultural deposits in this area are identified, documented, and recovered, if encountered.

If cultural deposits are encountered, the WCAC archaeologist will alert the construction crew to halt construction activity in that area, while the deposits are documented and mapped with a GPS. Should significant cultural deposits be encountered, the archaeologist will contact SHPO staff for direction on treatment of the resource. Avoidance of the cultural deposits is the preferred option, but if this is not feasible, data recovery measures will be undertaken. If necessary, arrangements will be made to safeguard the discovery.

Should human remains be discovered, the regulations outlined in 4.10.11 NMAC will be followed. The Aztec Police Department will be notified and will contact the state Medical Investigator and the SHPO. WCAC possesses an annual permit for the removal of human burials (ABE 13-037) and will excavate the remains if directed to do so.

Data Recovery

The locations of artifacts and features will be documented with a GPS prior to excavation or collection. Cultural materials and deposits will also be documented with digital photographs. If appropriate, a site grid will be established for artifact collection and excavation purposes. All excavation of cultural deposits will be conducted by hand. Hand excavation will be carried out with shovel, trowel, brush, and/or dental pick depending on the complexity and fragility of the resource. Excavation will be done in natural stratigraphic levels when stratigraphy is present, and in arbitrary levels when stratigraphy is not present. Primary cultural fill will be screened through 1/4-inch mesh, and in certain instances, through 1/8-inch mesh.

Excavations will be documented using a PD (provenience designation) system that Woods Canyon has used for 20 years. Since 2005, this system has been managed on laptop computers in the field. The PD system spatially tracks work across the site and is managed in a database that is entered into GIS. Once in GIS, patterns in the data can be analyzed and this streamlines report preparation. Artifacts collected from excavation are tied to this PD system through the use of bar codes that can be scanned in the field, checked into the laboratory, and be tracked throughout the analysis and curation process. The use of barcodes saves numerous hours of writing and re-writing sample bag information and field inventory lists, typing of inventory data and artifact analysis, and inevitable data checking and rechecking that typically accompanies archaeological excavation projects.

All features will be horizontally defined, sectioned, excavated, and sampled as appropriate. They will be documented with digital photographs, and plan and profile maps. Bulk soil, pollen, dendrochronological, and macrobotanical samples will be collected as appropriate. Information will be recorded on Woods Canyon's provenience description, feature, photograph, point location, and sample forms. All data will be managed through photograph, artifact, and sample inventory logs.

Artifacts and samples collected during excavation will be separated according to class/type, bagged, labeled, and inventoried for transport to WCAC's laboratory where they will be processed and either readied for in-house analysis or sent on to analysts or specialized labs for further analysis.

Laboratory and Analysis

Processing

Following excavation, all recovered cultural materials will be brought back to the Woods Canyon laboratory for processing and analysis. The field inventory forms will be compared to the laboratory inventory forms for discrepancies, any discrepancies will be corrected and then information on the inventoried materials will be entered into a computer data base for future artifact tracking. Initial laboratory processing of materials will consist of washing artifacts, organizing them by material classes, and labeling and bagging materials according to the curatorial standards of the Museum of Indian Arts and Culture, Laboratory of Anthropology, with whom WCAC has a curation agreement. Samples collected for special analysis (e.g., dendrochronological, pollen, faunal) will be separated into types and readied for shipment to the appropriate analysts.

Table 1. Laboratory Analyses

Type of Analysis	Analyst
Lithic	Woods Canyon staff
Ceramic	Woods Canyon staff
Faunal	Woods Canyon – Peter Rohman
Macrobotanical	Woods Canyon - Trisha Rude
Pollen	Northern Arizona University
Radiocarbon	Beta Analytic
Dendrochronological	University of Arizona Tree Ring Lab
Archaeomagnetic	Colorado State University

Lithic Analysis

For chipped stone and ground stone tools, an analysis of stylistic, functional and morphological attributes will be undertaken as well as material and source analysis. For lithic debris, data will be collected concerning the level and type of reduction, and the type of lithic parent material and its possible source (exotic or local).

Ceramic Analysis

Analysis of ceramic materials will be conducted to allow for a better understanding of site chronology, technology and extra-regional relations. To this end, data will be collected concerning the typological attributes of the ceramic artifacts (Chapin Gray, Piedra Black-on-white, etc.), the functional aspects and behavioral interpretations of the artifacts (jars vs. bowls - storage and cooking vs. consumption), and originating source of the artifact or parent material (temper and clay constituents as well as trade wares). To investigate clay provenance and for comparison with other ceramic studies in the area, a sample of ceramics will be sent for neutron activation analysis.

Faunal Analysis

All faunal materials recovered from excavation will be submitted for analysis. Analysis will address the kinds of animals exploited, the seasonality of procurement, processing techniques, and distribution patterns within each site. In addition, data on the use of faunal materials for tools will be recorded and analyzed with regard to function, manufacturing techniques and use wear.

Macrobotanical and Pollen Analysis

Macrobotanical remains and pollen analysis will be oriented toward determining the types of plants utilized, the relative importance of each plant, processing techniques, and distribution within the site.

Special Chronometric Studies

Several chronometric studies will be conducted to help define the exact time of the sites occupation. These studies consist of dendrochronological, archaeomagnetic, obsidian hydration, and radiocarbon dating.

Curation

Artifacts and relevant documentation will be curated at the Museum of Indian Arts and Culture, Laboratory of Anthropology, in Santa Fe, New Mexico.

SCHEDULE

The schedule for archaeological monitoring is subject to that of the City of Aztec and its construction contractors. WCAC will submit a monitoring report four weeks after monitoring has concluded. Should there be discovery of significant cultural resources, including human burials, this report will be preliminary. In-house analyses of excavated materials will be completed in six months, but artifacts and samples submitted for outside analysis may take six months to two years to complete, depending on the study. WCAC will submit a final report three months after the completion of all analyses.

REFERENCES CITED

Murrell, Jesse

2012 *Cultural Resource Inventory for the City of Aztec Sewer Outfall Line in San Juan County, New Mexico*. Report No. 2012-SME-01. El Morro CRM, Farmington, New Mexico.

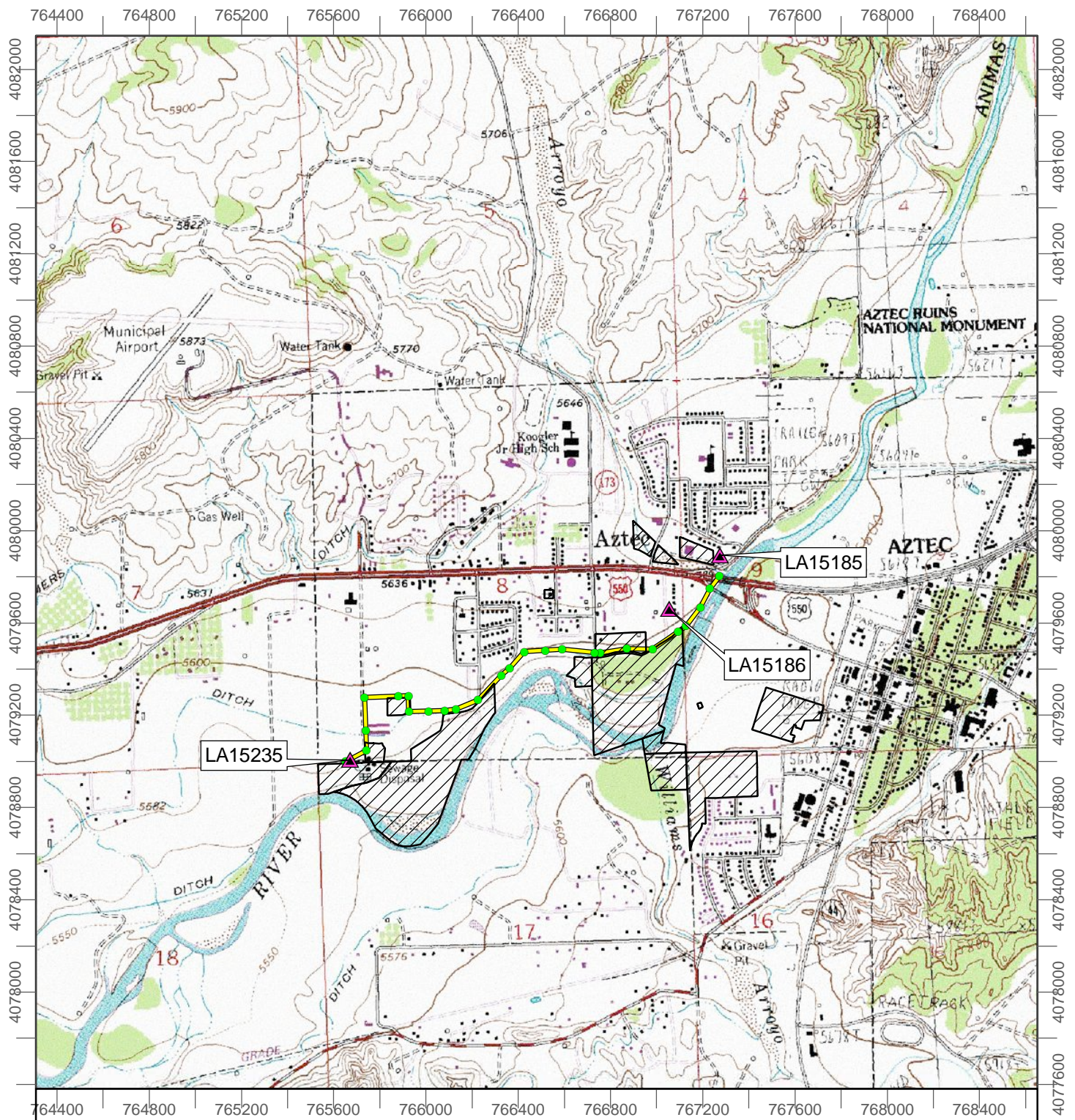
Quirolo, Mary and Kenneth K. Brown

2007 Cultural Resource Report for a Class I and Class III Survey of 0.3 ha (0.7 ac) for Proposed Improvements at the Aztec Wastewater Facility, Aztec, San Juan County, New Mexico.

Rude, Trisha

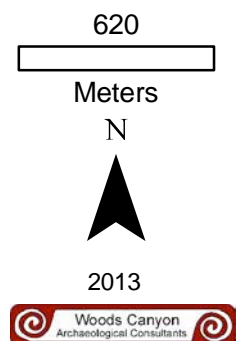
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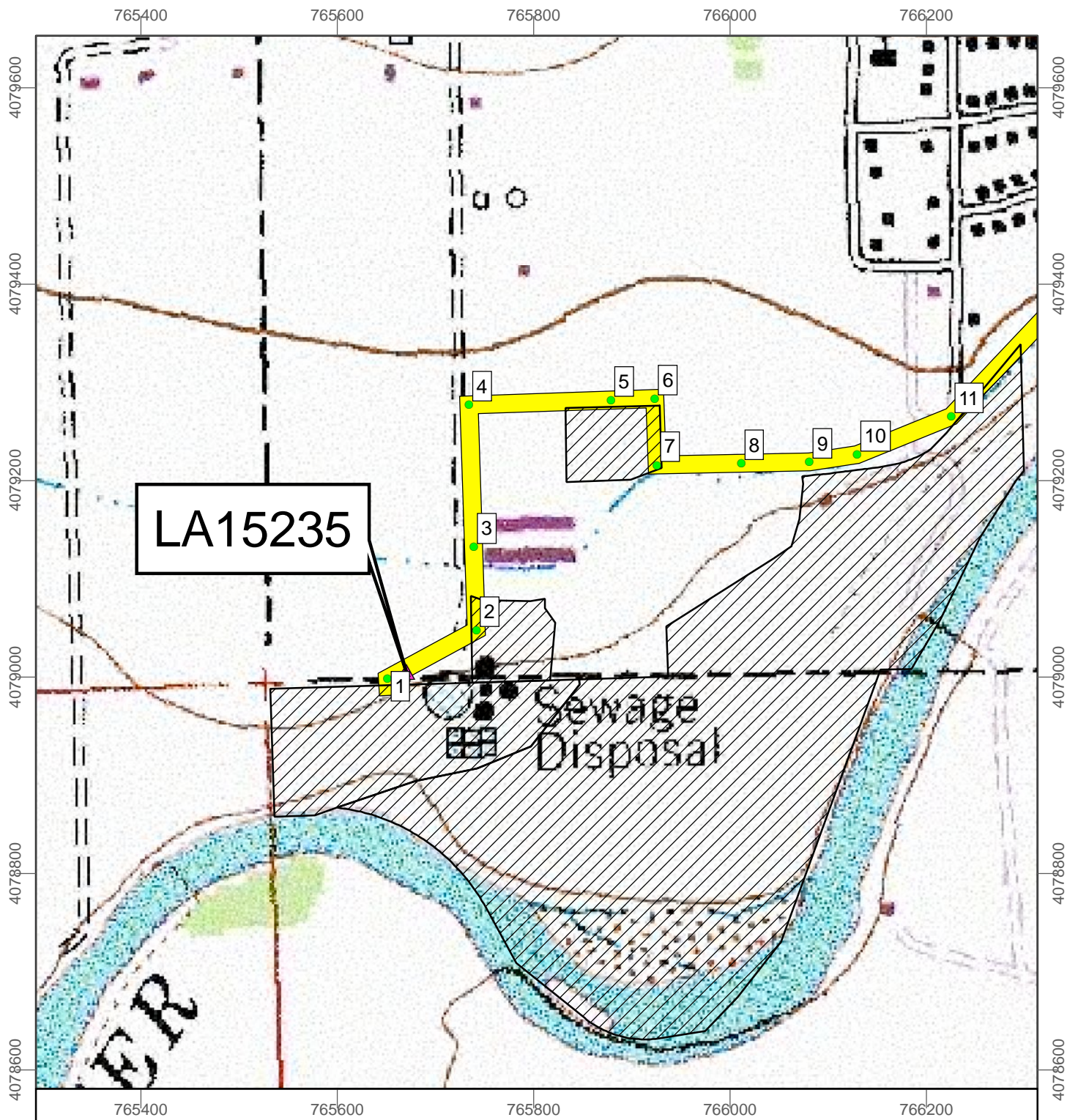
APPENDIX A: PROJECT MAPS



Aztec Sewer Outfall Line Project

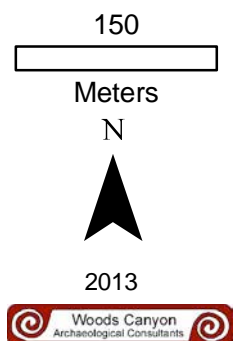
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- Aztec City Property

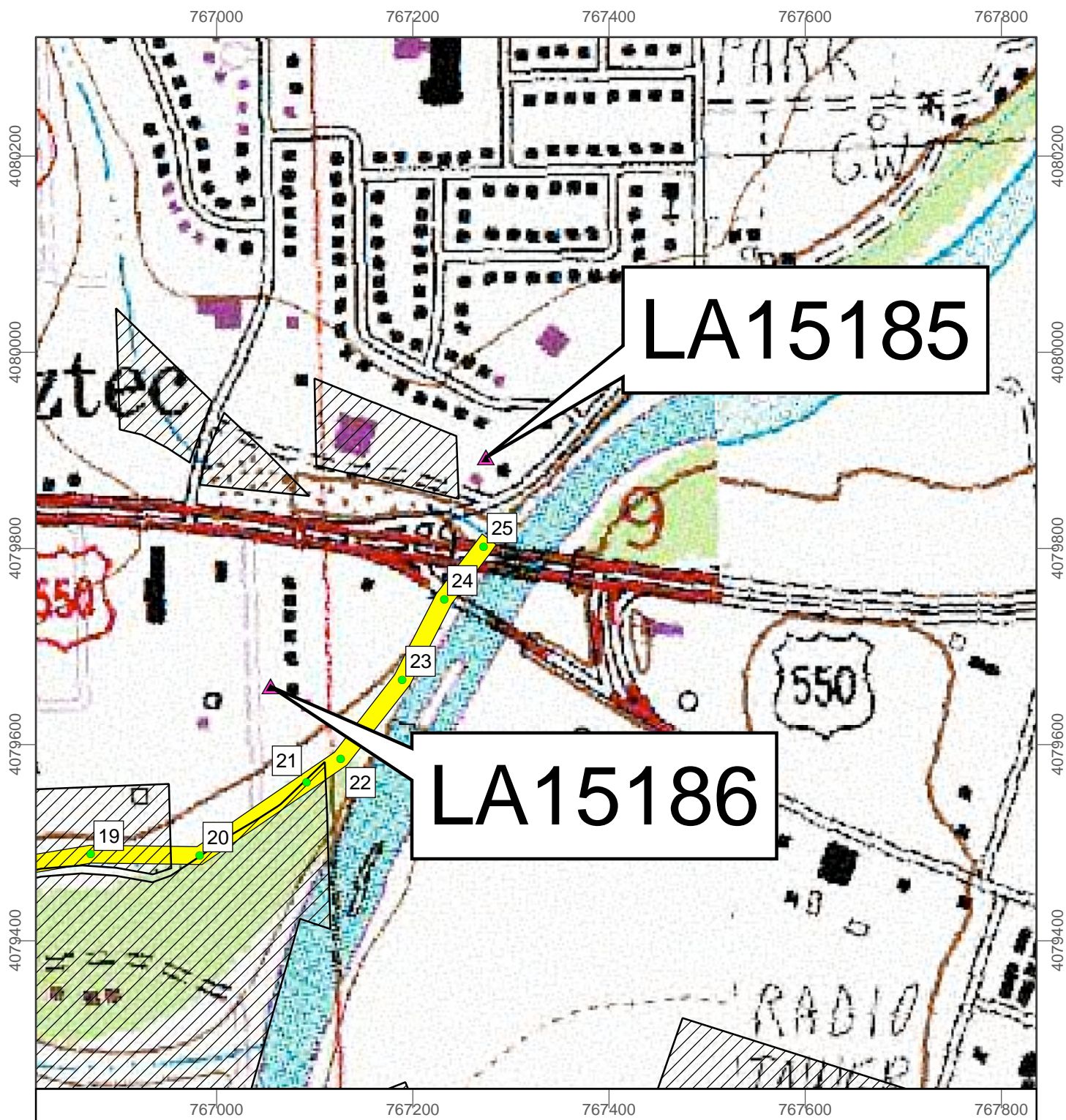




Aztec Sewer Outfall Line Project

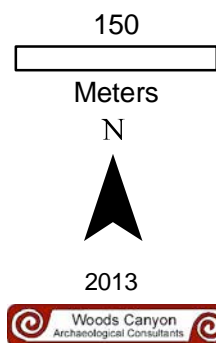
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Aztec Sewer Outfall Line Project

- Proposed Manholes
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- Aztec City Property





September 19, 2014

City of Aztec
610 Western Dr.
Aztec, NM 87401

SUBJECT: Authorization to Proceed
Reference: Utility Permit #2014- 234
Type of Facility: New Water and Sewer line.
Location: MM 158.40 to MM 158.58 on US 550 in San Juan County, NM.

Dear Mr. William Watson:

We have reviewed the subject utility installation submitted by you and find it substantially satisfies State Utility Regulation as proposed. ***This correspondence is your authority to proceed with construction of your facility installation in accordance with the drawings provided to us by your company.*** This authorization applies only to State NMDOT right-of-way; if other lands are involved (Indian, Federal, State, etc.); it is your responsibility to have secured their approval of your installation as well.

Please note that the fully executed Utility Permit will be returned to you as soon as we receive the required As-Built Plans and the Electronic File. These Items are required within 30, thirty, days of completion of the installation of your facility.

Should you find it necessary to deviate from the proposal, any such deviation must be approved in writing by the State prior to proceeding with the construction.

You are also required to contact the District Traffic Engineer using the enclosed construction notification form five days in advance and five days after completion of your project.

Please be aware that any time maintenance is to be performed on this permitted line, you must contact the District 5 Permit agent for the proper forms that will need to be filled out prior to construction or maintenance.

Proper traffic control must be in place during all construction. Please make sure a copy of the signed application and a copy of this letter are on site at all times.
Proper drainage must be maintained at all times.

Susana Martinez
Governor

Tom Church
Cabinet Secretary

Commissioners

Pete Rahn
Chairman
District 3

Ronald Schmeits
Commissioner
District 4

Dr. Kenneth White
Secretary
District 1

Robert R. Wallach
Commissioner
District 2

Butch Mathews
Commissioner
District 5

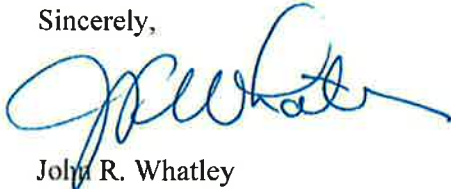
Jackson Gibson
Commissioner
District 6

In addition to the above requirements:

1. The traffic Control Plan and all traffic control devices used by the owner and the contractor must comply with Part VI of the Manual on Uniform Traffic Control Devices, {MUTCD} [latest edition].
2. The utility owner and contractor shall abide by Section 12.0 through 12.5 of the NMDOT Utilities Manual and General Utility Construction Requirements.
3. Please make sure all above ground parallel and crossing lines are clearly marked and proper drainage is maintained.
4. Should the roadside disturbance in conjunction with this permit application be LESS than ONE acre, a National Pollution Discharge Elimination System {NPDES} will not be required. If the roadside disturbance in conjunction with this permit application is GREATER than ONE acre, a National Pollution Discharge Elimination System will be required. The applicant shall maintain the required NPDES measures in accordance with the NMDOT's NPDES Specifications and/or the requirements listed in the NMDOT's Drainage Section's approval letter.
5. If this Utility is not installed within 6 months of the Letter of Authorization issue date, the permit application will be considered void until the application can be reinstated with a cover letter addressing the delay and requesting an extension.

If you have any questions, do not hesitate to contact me at 505-995-7804, desk or 505-944-5987, cell. You may also reach me via e-mail at; john.whatley@state.nm.us . Your cooperation in this matter is appreciated.

Sincerely,



John R. Whatley
District 5 Permit Agent

xc: Highway Maintenance Supervisor (4566) Melvin Coffman
File (US 550)

Enclosures: Exhibit "A"
Construction Notification form



June 12, 2014

City of Aztec
333 Rio Rancho Dr. NE ST101
Rio Rancho, New Mexico 87124

SUBJECT: Utility Permit # 2014-171- New underground sewer line installation crossing on NM 516 at MM 13.2 in San Juan County, NM.

Dear Mr. Arthur J. Montoya:

We have reviewed the subject utility installation and find it substantially satisfies State Utility Regulation as proposed. This correspondence is your authority to proceed with construction of your facility installation in accordance with the drawings provided to us by your company. This authorization applies only to fee owned State right-of-way; if other lands are involved (Indian, Federal, State, etc.); it is your responsibility to have secured their approval of your installation as well.

Should you find it necessary to deviate from the proposal, any such deviation must be approved in writing by the State prior to proceeding with the construction. You are also required to contact the District Traffic Engineer using the enclosed construction notification form five days in advance and five days after completion of your project.

Please be aware that any time maintenance is to be performed on this or any permitted line, you must contact the District 5 Permit agent for the proper forms that will need to be filled out prior to construction or maintenance.

Please also be aware the any disturbed ground will have to be re-seeded to NM DOT specifications and also proper drainage must be maintained.

Proper traffic control must be in place during all construction. Please make sure a copy of the signed application and a copy of this letter are on site at all times

If you have any questions, do not hesitate to contact me at 505-995-7804, desk or 505-944-5987, cell. Your cooperation in this matter is appreciated.

Sincerely,

John R. Whatley
District 5 Permit Agent

xc: Highway Maintenance Supervisor (4565) Pete Douglas
File (NM 516)

Enclosures: Exhibit "A"
Utility Permit
Construction Notification form

Susana Martinez
Governor

Tom Church
Cabinet Secretary

Commissioners

Pete Rahn
Chairman
District 3

Ronald Schmeits
Commissioner
District 4

Dr. Kenneth White
Secretary
District 1

Robert R. Wallach
Commissioner
District 2

Butch Mathews
Commissioner
District 5

Jackson Gibson
Commissioner
District 6



November 15, 2012

Mr. Christopher Wrbas
U.S. Army Corps of Engineers, Albuquerque District
Durango Regulatory Field Office
1970 East 3rd Avenue, Suite 109
Durango, Colorado 81301-5025

***RE: Aztec Sewer Outfall Line
Request for Verification of Nationwide Permit Number 12
Pre-Construction Notification
San Juan County, New Mexico
SME #120027, Action Number SPA #2011-00266***

Dear Mr. Wrbas:

SME Environmental Inc. (SME) was retained by the City of Aztec (Applicant) to procure Clean Water Act (CWA) Section 404 authorization for the above-referenced project. This letter serves as a request for verification from the U.S. Army Corps of Engineers (USACE) that the proposed project meets the terms and conditions outlined in Nationwide Permit (NWP) 12 to satisfy Section 404 of the CWA. Notification is required per the *2012 Regional Conditions in New Mexico*. The following information will allow you to process this requests. Referenced figures are provided within Appendix A.

NATIONWIDE PERMIT COMPLIANCE

The proposed project meets the terms and conditions set forth in NWP 12 for Utility Line Activities. Likewise, the proposed project will be in compliance with applicable regional conditions, as outlined in the *2012 Regional Conditions in New Mexico*.

401 Water Quality Certification (General Condition 21)

General Condition #25 of the NWPs states that individual 401 Water Quality Certification must be obtained or waived. In the State of New Mexico, conditions specified by the New Mexico Environment Department (NMED) in letter dated April 13, 2012 are necessary to assure compliance with the applicable provisions of the CWA §301, 302, 303, 306 and 307 and with applicable requirements of State law. Compliance with the terms and conditions of NWP 12 and referenced 401 Water Quality Certification letter will provide reasonable assurance that the permitted activities will be conducted in a manner which will not violate applicable water quality standards and the water quality management plan and will be in compliance with the anti-degradation policy. It is our understanding that the USACE will provide a copy of this document to the NMED for their review of the proposed project to issue individual 401 Water Quality Certification.

Contents of Pre-Construction Notification (General Condition 27)

(1) Name, address and telephone numbers of the prospective permittee;

City of Aztec
303 S. Ash Street
Aztec, NM 87410-2287

Contact Name: Mr. Mike Huber, P.E.

Title: City Engineer/Public Works Director

Email: mhuber@aztecnm.gov

Office: (505) 334-7661

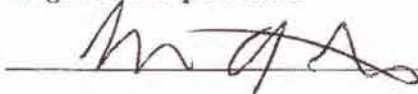
Mobile: (505) 603-0080

Relationship of permittee to property: ☐ Owner ☐ Purchaser ☐ Lessee ☒ Other

Property Owner, if other than permittee: This action is being proposed on municipal (City and County) and privately owned lands and the portion at Aztec Blvd. (NM 516) would be within NMDOT right-of-way (ROW).

Application is hereby made for verification that subject regulated activities associated with subject project qualify for authorization under a Corps nationwide permit or permits as described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work only after all necessary permits have been received.

Signature of permittee



Date

11/15/12

Authorized Agent Name and Signature

(If an agent is acting for the permittee during the permit process)

SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301

Contact Name: Ms. Kerriane Zdimal

Title: Senior Regulatory Specialist

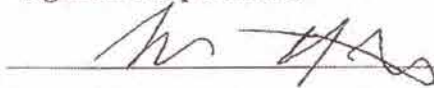
Email: kerri@sme-env.com

Phone: (970) 259-9595

Fax: (970) 259-0050

I hereby authorize the above named authorized agent to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application. I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.

Signature of permittee



Date

11/15/12

I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.

Signature of authorized agent



Date

11/15/12

(2) *Location of the proposed project;*

The proposed project is located within the City of Aztec, NM. The City of Aztec, NM is located 36 miles south of Durango, CO and 15 miles east of Farmington, NM. The east end of the project site can be accessed at the western abutment of the NM Hwy 516 (West Aztec Blvd.) bridge crossing the Animas River. The west end of the project (terminus) is the City of Aztec Sanitary Sewer Plant located at the end of South Oliver Avenue. The replacement sewer line would roughly parallel the Elledge Mill Ditch from West Chaco Street west to South Oliver Drive. A road map is provided as [Figure 1](#). The general location and approximate boundary of the proposed project site are depicted on the Flora Vista, NM. 7.5' USGS quadrangle map ([Figure 2](#)); the proposed project site lies within the South ½ of Section 8 and Northwest ¼ of the Southwest ¼ of Section 9 within Township 30N of Range 11W of the New Mexico Principal Meridian (NMPM). The centroid location of the subject site is (approximately) at Latitude 36° 49' 23" and Longitude 108° 0' 49" W (NAD 83).

Waterbody (if known, otherwise enter “an unnamed tributary to”): The project area would impact Elledge Mill Ditch and wetlands.

Tributary to what known, downstream waterbody: Animas River.

(3) *Description of the proposed project; project's purpose; existing conditions; identification of direct and indirect adverse environmental effects the project would cause.*

Project Purpose: The purpose for the proposed action is to replace an existing line that is nearing the end of its useful lifespan. The current sewer outfall line serves as the main collector for 100% of the City of Aztec's wastewater stream. The existing 15" clay tile sewer line was installed in the 1950s and the need for the action has arisen because the existing line has deteriorated and clogged with sand.

Site Description/Existing Conditions: The linear project site is limited to the existing 60-foot wide utility easement. Consequently, the majority of the site is in a disturbed state due to the past and present use of the easement for the subject sewer line. Furthermore, the sewer line is located within paved roadway in two sections of the project area.

The project site is located along the northwestern terrace slope of the Animas River floodplain. The easement is not located within the 100-yr floodplain; it generally contours the upper terrace edge paralleling the uphill edge of the Elledge Mill Ditch. The floodway contains areas of native riparian communities characterized by the dominant presence of cottonwood (*Populus deltoides*), but the terrace slope, on which the project corridor is located, generally contains a transitional upland community characterized by the dominant presence of three leaf sumac (*Rhus trilobata*), Chinese elm (*Ulmus pumila*) Wood's rose (*Rosa woodsii*) and smooth brome (*Bromus inermis*). The utility corridor also crosses two wetland areas. The eastern wetland area (Wetland 02) is a willow/phragmites dominated wetland community and a western wetland area (Wetland 05) is a cattail dominated wetland community that also supports various wetland grasses and rushes including Torrey's rush (*Juncus torreyi*) and scratch grass (*Muhlenbergia asperifolia*). The vegetation located within the easement is largely disturbed due to disturbance related to the original construction and ongoing maintenance activities on the existing sewer line, ditch and overhead utility lines.

The slopes within the proposed project range from 3-70 % and the slopes direct surface run-off south towards the Elledge Mill Ditch and the Animas River beyond. The Elledge Mill Irrigation Ditch is an artificial waterway that maintains downstream surface connection to the Animas River. Wetlands line the banks of the ditch and are primarily supported by this artificial water source. Other small wetland areas within the project area (Wetlands 02 and 05) are supported primarily by concentrated surface runoff in swale features. The Elledge Mill Ditch flows during the growing season and may also intercept and convey water during storm events.

The project site is bound by mixed-use residential and commercial properties and roadways to the north and west and by the Animas Floodplain to the south and east, which also includes the City of Aztec's Riverfront Park.

Project Description: The City of Aztec (City) proposes to install a 24" sewer line primarily along an existing 60-foot wide sewer line easement in San Juan County in northwest New Mexico (Figure 1). Approximately 7,188 feet of sewer line would be installed to replace the existing outfall line from Aztec Blvd. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows the Elledge Mill Ditch north of the Animas River (Figure 2). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. A copy of the plan drawings is provided as [Appendix D](#).

The proposed sewer line replacement project will entail placement of a new sewer line adjacent to the existing sewer line within the existing easement. Due to the deteriorated state of the existing sewer line, it will likely be abandoned in place. Construction of the proposed utility will require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline.

Following completion of construction, areas of temporary disturbance will be restored to pre-construction elevations and revegetated, as appropriate. Furthermore, trenched areas will not be constructed in a manner as to drain jurisdictional wetlands and other WOUS (i.e. backfilling with extensive gravel layers, creating a French drain effect) and techniques (such as clay blocks) will be used to ensure that the trench does not drain the WOUS through which the force main is installed. A wetland location map ([Figure 4](#)) is included to identify the locations of existing wetlands in relation to the proposed project.

Avoidance and Minimization: To avoid and minimize impacts to jurisdictional WOUS to the maximum extent practicable, construction activities will be limited to the immediate vicinity of the proposed project. BMPs will be used to prevent erosion and sediment runoff prior to, during and after construction (as necessary and applicable) to minimize impacts to important natural resources. Following completion of construction, areas of disturbance will be re-vegetated/stabilized, as appropriate.

No permanent impacts to jurisdictional WOUS will result from the proposed activity. The location of manholes and associated appurtenances will be located outside the boundary of aquatic resources. Approximately 1,000 feet of the line would be bored underground to avoid

impacts to the Elledge Mill Ditch and excess surface disturbance. However, dependent upon cost, logistics and design specifications, boring of the entire line may not be feasible.

The proposed sewer line would deviate from the existing easement for approximately 1,596 feet at the western end of the proposed alignment in order to avoid buildings that overlie the existing easement (Appendix D). Since the installation of the original sewer line, buildings at A-1 Mini Storage in Aztec have been constructed over the existing easement. The existing sewer line will be left in place.

Impacts to WOUS: Temporary impacts have been calculated for a trench-only scenario with a 60-ft temporary disturbance area that crosses jurisdictional WOUS perpendicular to flow and provides contractor with adequate area for trench excavation, placement of spoil piles and installation of BMPs (1.00 acre). To minimize impacts to jurisdictional WOUS, the project proponent may utilize a boring solution instead of an open trench solution; however, feasibility of this technology is dependent upon cost, logistics and design specifications (including but not limited to design grade requirements for the installed sewer line). An as-built will be submitted to the USACE detailing the resulting temporary impacts to jurisdictional WOUS.

Management of Water Flows: Work will be conducted in the no flow period. The activity will be constructed to withstand expected high flows.

Best Management Practices: Standard construction practices will be implemented on-site (as applicable) to further minimize impacts to jurisdictional WOUS. Material resulting from construction will be placed in such a manner that it will not be dispersed by currents or other forces. Any exposed slopes will be stabilized immediately upon completion of the erosion mitigation.

- Appropriate measures will be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites.
- Material resulting from trench excavation will be placed in such a manner that it will not be dispersed by currents or other forces. Any exposed slopes and stream banks will be stabilized immediately upon completion of the utility line crossing of each waterbody. The trench will not be constructed or backfilled in such a manner as to drain WOUS (e.g. backfilling with extensive gravel layers, creating a French drain effect).
- Following completion of construction, areas of temporary disturbance will be restored to pre-construction elevations and revegetated, as appropriate.

Therefore, we believe that the proposed project minimizes impacts to wetlands and the aquatic environment to the maximum extent practicable while maintaining the project purpose.

(4) *The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site.*

SME conducted a site visit on December 10 and 11, 2009 to identify the location of wetlands and other WOUS in the project area using the methodology defined in the Routine Determination procedure set forth in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (USACE 1987), and the *U.S. Army Corps of Engineers Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008), as appropriate. Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. Due to the clearly defined nature of the wetland boundaries and difficult winter conditions at the time of inspection (i.e. frozen soils and dead and desiccated herbaceous layer), no data sheets were produced. The boundaries were survey-located by SME using Trimble Geo XT 2008 GPS (sub-meter accuracy) and are depicted on Figure 4. The results of this delineation are described in SME's report dated February 2010 and provided within Appendix C. A supplement to this report will be provided under separate cover denoting the location of data points taken in 2012 with accompanying data sheets.

(5) *If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied.*

The proposed project will not result in the loss of any wetlands. BMPs will be used to prevent erosion and sediment runoff prior to, during and after construction. These BMPs will be installed before construction begins and will remain in place until construction is completed, and removed as directed by the engineer or owner. BMPs will be implemented on-site as necessary and applicable to minimize impacts to important natural resources and may include techniques such as controlling surface water runoff in relation to slopes and other graded areas, placing hay bale barriers, silt fencing and/or sandbags along the toes of graded slopes, constructing water diversion bars on larger slopes to reduce flow velocity of storm runoff and bank material, restoring vegetation to impacted areas as soon as possible after completion of grading, placing silt curtains around construction areas to reduce erosion of disturbed soils and siltation of natural drainage channels, and applying water to graded areas and roads during construction to control dust. The base of silt fencing shall be buried 6 inches below the surface of the ground. Areas of temporary impacts to wetlands and other WOUS will be restored and re-vegetated, as appropriate upon completion of project construction.

(6) *Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act.*

The following information is provided in accordance with General Condition 18 (Endangered Species). A biological evaluation was conducted by SME in July 2012 and a report documenting the findings was prepared for on behalf of the City of Aztec for NMED. A copy of the referenced report can be provided upon request; the table below identifies the findings for federally-listed species.

A total of 12 federally listed threatened, endangered, proposed, and candidate species were analyzed for potential impacts by the proposed action. A "no effect" determination is warranted

for 11 of these species for the specified proposed project area. One species, the southwestern willow flycatcher, warrants a determination of “may affect, not likely to adversely affect”. These 12 species determinations are further discussed below ([Table 1](#)).

Table 1. Species listed by the USFWS under the authority of the Endangered Species Act of 1973 for San Juan County, New Mexico (E = Endangered, T = Threatened, C = Candidate for listing).

Species Name	Conservation Status	Habitat Associations	Potential to Occur in the Proposed Action Area
Mammals			
Black footed ferret (<i>Mustela nigripes</i>)	FE	Grassland plains where it occurs in association with prairie dogs. At a minimum, the black-footed ferret requires prairie dog towns of at least 80 acres for suitable habitat.	NONE: No known prairie dog colonies are located within the proposed action area.
Canada lynx (<i>Lynx canadensis</i>)	FC	Mature subalpine coniferous forests with uneven-aged stands, boulder outcrops, and downed logs.	NONE: No subalpine forests occur within the proposed action area; elevation too low. The Animas River corridor is unlikely to provide a suitable migratory corridor for the species as there are no suitable habitats near the Animas or San Juan Rivers downstream of the project area.
Birds			
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE	Riparian habitats along rivers, streams, or other wetlands with dense growths of willows or other shrubs and medium sized trees.	LOW: Limited suitable habitat occurs in and adjacent to the project area. See below for supporting information.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	FT	Mature montane forest and in shaded, woody, and steep canyons.	NONE: No montane forests are located within the proposed action area.
Whooping crane (<i>Grus americana</i>)	Experimental, non-essential population; Rocky Mountain population	Nests at shallow diatom ponds that contain bulrush. Migration: wetland mosaics most suitable. Feeding: primarily use shallow, seasonally and semi permanently flooded palustrine wetlands for roosting, and various cropland and emergent wetlands.	NONE: No suitable wet areas or cropland occur in or near the analysis area. Rocky Mountain experimental population has been discontinued.

Species Name	Conservation Status	Habitat Associations	Potential to Occur in the Proposed Action Area
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FC	Low to mid-elevation riparian woodlands, deciduous woodlands, and abandoned farms and orchards.	NONE: While the terrain surrounding the project area does contain stands of cottonwoods, these stands are not populated with extensive, mature cottonwood galleries with a dense understory of shrubs that would provide the preferred nesting habitat for yellow-billed cuckoos. In addition, no mature cottonwood habitat will be removed by the proposed project.
Fish			
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	FE	Large rivers with strong currents, deep pools, and quiet backwaters.	NONE: There will be no depletions associated with the project implementation. The proposed project would not affect water quality or quantity within the San Juan River or its tributaries.
Razorback sucker (<i>Xyrauchen texanus</i>)	FE	Habitats include slow areas, backwaters and eddies of medium to large rivers; impoundments.	NONE: There will be no depletions associated with the project implementation. The proposed project would not affect water quality or quantity within the San Juan River or its tributaries.
Roundtail chub (<i>Gila robusta</i>)	FC	Occurs in cool to warm water, mid-elevation streams and rivers with deep pools adjacent to swifter riffles and runs. Cover is usually present (large boulders, tree rootwads, submerged large trees, etc.)	NONE: Roundtail chub is historically known to occur in the Animas River (NMDGF 2012). While the project site is very near the Animas River, the proposed project would not affect water quality or quantity within the Animas River or have any direct or indirect effects on the bed or banks of the river. A Stormwater Pollution Prevention Plan will be prepared for the proposed project to ensure the protection of surface and ground water resources.
Plants			
Knowlton's cactus (<i>Pediocactus knowltonii</i>)	FE	Alluvial deposits that form rolling, gravelly hills in piñon-juniper and sagebrush communities (6,200-6,400 ft.).	NONE: Soils in the proposed project area are clay and sandy in texture and do not contain a high content of organic matter

Species Name	Conservation Status	Habitat Associations	Potential to Occur in the Proposed Action Area
Mancos milkvetch (<i>Astragalus humillimus</i>)	FE	Cracks of Point Lookout Sandstone of the Mesa Verde series (5,000-6,000 ft.).	NONE: Point Lookout Sandstone does not occur in the proposed action area.
Mesa Verde cactus (<i>Sclerocactus mesae-verde</i>)	FT	Highly alkaline soils in sparse shale or adobe clay badlands of the Mancos and Fruitland formations (4,000-5,550 ft.)	NONE: Proposed action area surficial geology does not include Mancos or Fruitland Shale Formations.

The proposed project warrants a “may effect, but not likely to adversely affect” determination for the southwestern willow flycatcher (SWFL). A 0.3-acre patch of palustrine scrub-shrub (PSS) vegetation dominated by willow and reed would be directly impacted by the construction of the proposed sewer line. The wet area is situated in a small depression between the Elledge Mill Ditch and a slope uphill of and north of the ditch. The depression formed as a result of the construction of the Elledge Mill Ditch across what was once a small swale that likely drained south towards the Animas River. Within this PSS patch, SME identified approximately 0.06 acre of willow that would meet the most basic habitat requirements for SWFL. The nearest neighboring willow patches are located approximately 1,400 feet to the west. No natural waterway is labeled on the Aztec, NM. 7.5’ USGS quadrangle map in relation with this patch, and no waterway was identified within this patch in the field. The wet area likely receives a seasonal charge from upslope run-off and percolation from the Elledge Mill Ditch. The habitat patch exhibits adequate ground water to support such habitat. Furthermore, the potential habitat is approximately 100 ft northwest of the Animas River channel. However, the isolated patch is not part of a larger complex of suitable riparian habitat. Informal consultation with the USFWS has determined that the 0.06 acre habitat patch would be marginally suitable at best given the relatively dry nature of the site, the low stature of the willows, the low density of the willows, and the very small size of the patch (D. Hill, personal communication 2012). In addition, USFWS indicates that there are no known SWFL nest territories in or near the project area (D. Hill, personal communication 2012).

In addition to potential habitat within the project area, a large (10-acre) cottonwood/willow/Russian olive wetland complex occurs approximately 150 feet south of the alignment in the historical floodplain of the Animas River from Light Plant Road west to Swire Ave. The abutting 10-acre cottonwood/willow complex is moderately mature with approximately 10% cottonwood canopy (30-50 feet high) and approximately 50% willow canopy (8-15 feet high), interspersed with wet meadow/marsh areas immediately adjacent to the Animas River. The complex appears to provide the vegetation and hydrology suitable to support SWFL.

The effects on potential SWFL habitat in the analysis area from the proposed action are likely to be insignificant and discountable. Anticipated direct impacts from the installation of the proposed sewer line would be the removal of the 0.06 acre patch, increased noise from construction activities, and elevated levels of fugitive emissions. Removal of the 0.06 acre patch would have an insignificant effect on SWFL due to the poor suitability of the patch and these effects are likely to be discountable due to the unlikelihood that any SWFL occur in the action

area. Current direct impacts to potential SWFL habitat in and adjacent to the project area include noise and activity from an adjacent mobile home park, other residences, the adjacent pedestrian River Trail maintained by the City of Aztec, and the nearby Riverside Park opposite the Elledge Mill Ditch. New disturbances associated with the proposed action are likely to increase existing disturbances in the short term. The relatively short duration of these activities and the distance of these activities in relation to the 10-acre cottonwood-willow complex would constitute insignificant effects. Effects resulting from noise and fugitive emissions are likely to be discountable due to the unlikelihood of SWFL to occur in the action area.

To demonstrate compliance with general condition 19, Migratory Birds and Bald and Golden Eagles, SME analyzed potential effects to protected bird species in the biological evaluation prepared for the proposed action. A copy of the document can be provided upon request. To the best of our knowledge, the project will not result in a “take” of bald or golden eagles.

(7) Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

The following information is provided in accordance with General Condition 20 Historic Properties. A Class III cultural resource inventory has been completed for the proposed project. The inventory was conducted by El Morro CRM under the provision and standards of 4.10.15 New Mexico Administrative Code: Cultural Resources, Cultural Properties and Historic Preservation, Standards for Survey and Inventory. Standards included a records search and a pedestrian survey of the project area and cultural buffer zone on either side of the ROW.

A total of two previously recorded sites (LA 68214 and LA 122905) were encountered and updated during the survey. Site LA 68214 is an in-use segment of the Elledge Mill ditch. During the most recent previous recording, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation. Site LA 122905 is the in-use Chaco Street bridge (NMDOT Bridge No. 119) over the Animas River. A SHPO determination of eligibility (DOE) for site LA 122905 was made on 16 May 2008. The site was determined to be eligible for listing in the NRHP under Criteria A and C. There was no reason to reevaluate the SHPO DOE.

A single previously recorded site (LA 15235) was not relocated in the current survey area. The site was originally encountered in an area currently occupied by the Aztec Wastewater Treatment Facility. During the most recent previous update (NMCRIS Activity No. 104774), no surface manifestation of the site was observed and the recorder offered no treatment recommendations for a wastewater facilities improvement project. NRHP eligibility remained undetermined. During construction for the improvements to the facility, prehistoric human remains were discovered at the site. The remains were reinterred at site LA 168259 (NMCRIS Activity No. 118867). During the current investigation, no surface manifestation of the site was observed. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined. The proposed undertaking crosses NMDOT right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and SRCP listing; however, the

NMDOT Environmental Design Division did not require an evaluation of eligibility during the current investigation.

The proposed undertaking should have *no adverse effect* on historic properties if the recommendations offered below are followed. The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. All construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. This is also the case with NMDOT bridges 6219 and 6220. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered. Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two prehistoric sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. The archaeologist should also monitor all initial ground-disturbing construction activities within LA 15235 and the Aztec Wastewater Treatment Facility. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted concerning the treatment of the resource.

Thus, to the best of our knowledge, the proposed project will not impact historic properties listed, or eligible for listing, in the National Register of Historic Places. A copy of the referenced report can be provided upon request. Cultural clearance is pending as part of the Environmental Information Document (EID) review process by the New Mexico Environment Department - Construction Programs Bureau (NMED-CPB); a copy of the New Mexico Historic Preservation Division clearance letter can be provided upon receipt.

SUMMARY

This document serves as a PCN for activities under NWP 12 (Utility Line Activities) for the Aztec Sewer Outfall Line project. The City of Aztec proposes to install a 24" sewer line primarily along an existing 60-foot wide sewer line easement in San Juan County in northwest New Mexico. Approximately 7,188 feet of sewer line would be installed to replace the existing outfall line from Aztec Blvd. west to South Oliver Dr. The proposed project will result in up to 1.00 acre of temporary impacts to jurisdictional WOUS.

Areas of temporary disturbance will be restored to pre-construction elevations and re-vegetated, as appropriate, upon completion of construction activities. Furthermore, BMPs will be used to prevent erosion and sediment runoff prior to, during and after construction (as necessary and applicable) to minimize impacts to important natural resources.

We request written verification from the USACE that the proposed project meets the terms/conditions of NWP 12 and qualify for Water Quality Certification from the NMED. Please contact us at (970) 259-9595 if you have any questions or require additional information. Thank you in advance for your attention to this matter.

Sincerely,

SME ENVIRONMENTAL, INC.



Kerrienne Zdimal, PWS
Senior Regulatory Specialist

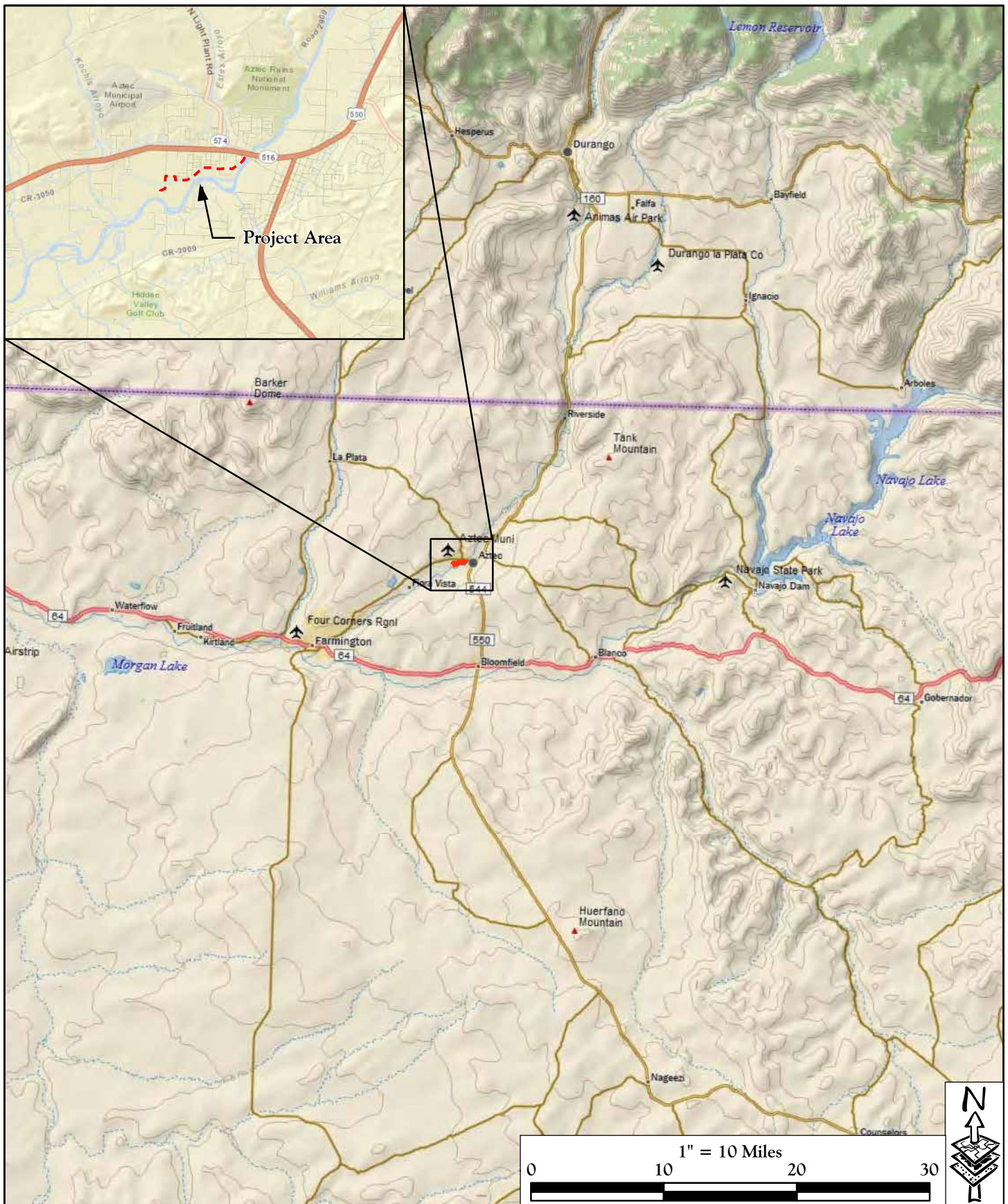
Encls.


cc: Mr. Mike Huber, P.E. City of Aztec

S:\Projects\120027 Aztec Sewer 2012\CWA\nwp 12_aztec sewer.docx

Appendix A

Figures



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	ROAD/VICINITY MAP	FIGURE 1
	AZTEC SEWER OUTFALL LINE NATIONWIDE PERMIT 12	Sources: ESRI, DeLorme, AND, Tele Atlas, First American, ESRI Japan, UNEP/WCMC, USGS, METI, ESRI Hong Kong, ESRI Thailand, Procalcilo Prosis

PROJECT LOCATION:

Township 30 North, Range 11 West,
Sections 8, 9, and 17,
NMPM, San Juan County, New Mexico.

Western Terminus:

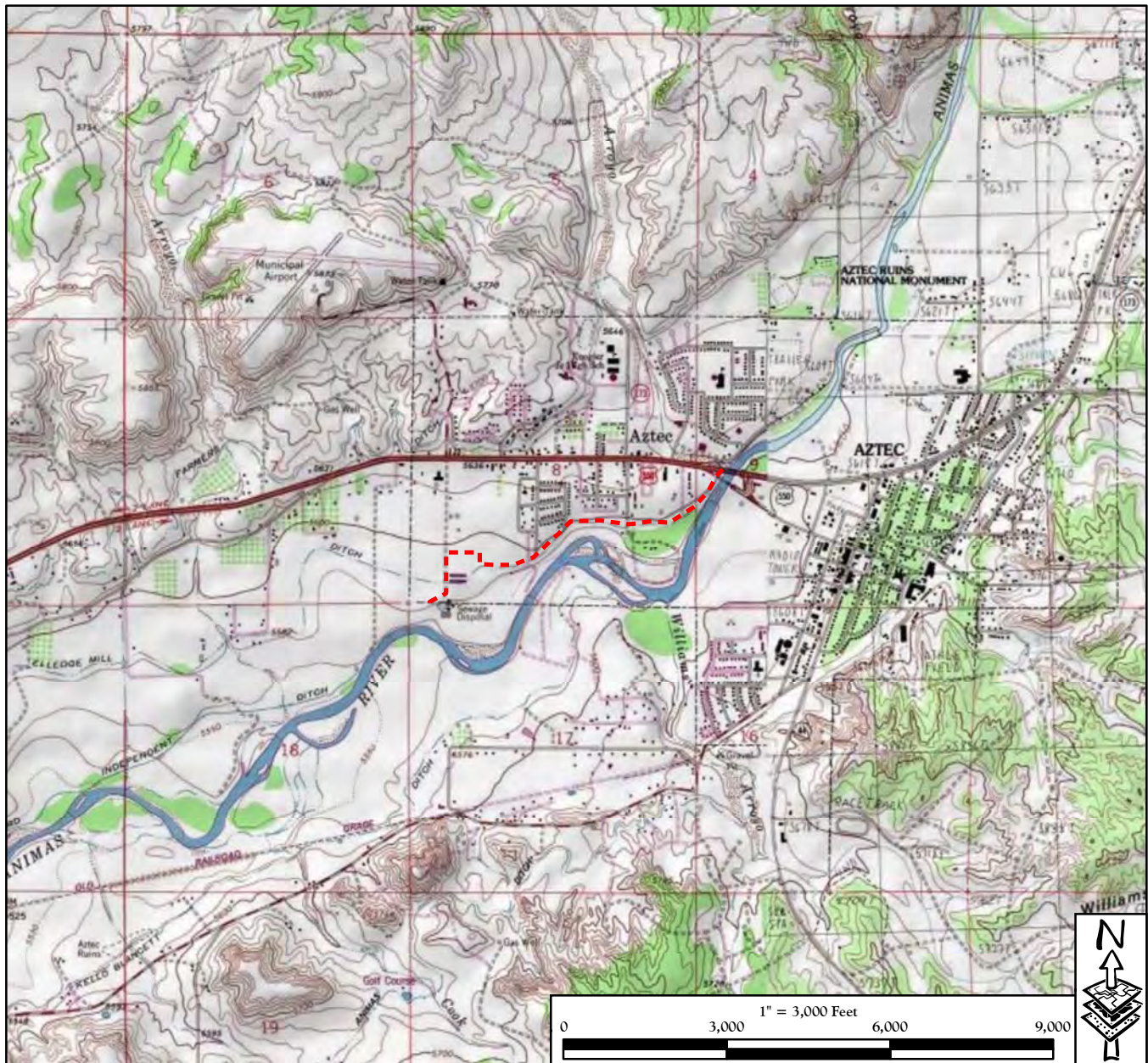
Lat: 36° 49' 10.2" N Long: 108° 01' 18.3" W

Eastern Terminus:

Lat: 36° 49' 34.9" N Long: 108° 00' 12.0" W

Legend

----- Proposed Sewer Line



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PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
NATIONWIDE PERMIT 12

FIGURE 2

Source: Aztec & Flora Vista, New Mexico
7.5' USGS Quadrangles
Copyright: © 2010 National Geographic Society



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PRELIMINARY NOT
FOR CONSTRUCTION OR
RECORDING

**AZTEC SEWER OUTFALL LINE
AERIAL SITE MAP
NATIONWIDE PERMIT 12**

Date: 11/14/2012
Project #: 120027
Name: Figure 4
Scale: 1" = 400'

Notes:
Datum: NAD 1983
Projection: State
Plane New Mexico
West, Feet.
Source: Aerial Photo
Taken in 2011
Provided by
National Agriculture
mastery Program
(USDA).

03

GENERAL NOTES:

1. Aerial photograph obtained from National Agriculture Imagery Program (photo taken 2011).
2. SME conducted a site visit on December 10 and 11, 2009 to identify the location of wetlands and other WOUS in the project area using the methodology defined in the Routine Determination procedure set forth in the U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE 1987), and the U.S. Army Corps of Engineers Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008), as appropriate.
3. Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions.
4. The boundaries of wetlands and other WOUS were survey-located using Trimble GeoExplorer 2008 Series (sub-meter accuracy).
5. For ease of reference, wetlands and other WOUS have been labeled Area A, through Area Y.
6. All wetlands and other WOUS boundaries, depicted hereon, are subject to modification until formal jurisdictional verification has been completed by the USACE.
7. No permanent impacts to jurisdictional WOUS are anticipated. If required, trenching activity would potentially result in temporary impacts to jurisdictional WOUS. Upon completion of the project, an as-built will be submitted to the USACE detailing the resulting temporary impacts to jurisdictional WOUS.

-
- Wetland 07 and Ditch 05
- Wetland 09 and Ditch 07
- Wetland 08 and Ditch 06
- Avoided Impact Area -
Sewer Line Boring Location
(Wetland 10 and Ditch 08)
- Aztec Sewage
Treatment Facility
- LAT: 36° 49' 3.994" N
LONG: 108° 1' 22.465" W

Area Name	Type	Jurisdiction	Acreage	Square Feet	Centroid X	Centroid Y
D1	R4SB	Y	0.15	6396	-108.003924	36.825577
D2	R4SB	Y	0.02	944	-108.006282	36.823742
D3	R4SB	Y	0.06	2555	-108.011090	36.823616
D4	R4SB	Y	0.19	8487	-108.013289	36.823197
D5	R4SB	Y	0.02	785	-108.015819	36.821575
D6	R4SB	Y	<0.01	633	-108.016994	36.821375
D7	R4SB	Y	0.03	1320	-108.018443	36.821418
W1	PEM	Y	0.05	2239	-108.003793	36.825732
W2	PSS/PEM	Y	0.28	12291	-108.005085	36.824434
W3	PEM	Y	0.02	688	-108.006260	36.823757
W4	PEM	Y	0.06	2481	-108.011081	36.823631
W5	PEM	Y	0.02	1074	-108.011168	36.823755
W6	PEM	Y	0.07	2973	-108.013275	36.823208
W7	PEM	Y	<0.01	171	-108.015836	36.821579
W8	PEM	Y	<0.01	189	-108.016997	36.821382
W9	PEM	Y	<0.01	378	-108.018446	36.821417
Total			1.00	43,603		



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PRELIMINARY NOT
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RECORDING

AZTEC SEWER OUTFALL LINE IMPACT MAP NATIONWIDE PERMIT 12

Date: 11/14/2012
Project #: 120027
Name: Figure 4
Scale: 1" = 400'

Notes:
Datum: NAD 1983
Projection: State
Plane New Mexico
West, Feet.

04



Appendix B

Site Photos

PHOTO DOCUMENTATION
CITY OF AZTEC SEWER OUTFALL LINE
(Photos taken 12/10/09 & 12/11/09 by PH & NK)

Photos progress from east to west along the sewer easement



Photo 1: Sewer Alignment looking SW under bridges near eastern terminus of project Elledge Mill Ditch (EMD) at left.



Photo 3: View of sewer alignment looking SW into Wetland-2, which is dominated by *Salix exigua* and *Phragmites australis*.



Photo 2: Sewer alignment looking SW from same location as photo 2, EMD at left, steep terrace hillside at right.



Photo 4: View of sewer alignment looking SW into terrace slope *Rosa woodsii* (red shrub) and *Rhus trilobata* (tall grey).



Photo 5: Panoramic view looking SE to SW at 10 acre willow/cottonwood complex located adjacent to the south side of the sewer easement which tightly parallels the EMD in middle of photo.



Photo 6: View of sewer alignment looking E. EMD at right.



Photo 7: View of sewer alignment looking N along South Oliver Ave. near the western terminus.

Appendix C

Wetland Delineation Report

WETLAND DELINEATION REPORT

City of Aztec

Outfall Sewer Line Improvement Project

San Juan County, NM



Prepared On behalf of:



The City of Aztec

Public Works

303 S. Ash Ave

Aztec, NM 87410

(505) 334-7660

Prepared By:



ENVIRONMENTAL CONSULTANTS

679 E 2nd Avenue, Unit E2

Durango, Colorado 81301

February 2010

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Figure 3: NRCS Soil Map and Aerial Photo

Figure 4: NWI Map

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Appendix B: Site Photo Documentation

1.0 BASIC PROJECT INFORMATION

All figures are located in Appendix A

1.1 USACE File #: Not available at this time (initial application)

1.2 Project Name: City of Aztec Sewer Line Improvement Project

1.3 Contact Information:

Applicant:

City of Aztec
Public Works Department
303 S. Ash Ave
Aztec, NM 87410
Phone: (505) 334-7660
Fax: (505) 334-7669
Contact Person: Mr. Mike Huber, P.E.

Agent/Consultant:

SME Environmental, Inc.
679 E. 2nd Ave /Unit E2
Durango, Colorado 81301-7470
Phone: (970) 259-9595
Fax: (970) 259-0050
Contact Person: Mr. Sean Moore
Email: smoore@sme-env.com

2.0 PROJECT SETTING

2.1 Site Location:

The project proposed by the City of Aztec, the Aztec Sewer Outfall Line Project, is a sewer line located within sewer line easements. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Northwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map ([Figure 2](#)). The project survey plan drawings are on file with the City of Aztec Public Works Department (303 S. Ash Ave., Aztec, NM 87410; (505) 334-7660). The proposed project is located within the City of Aztec, NM. The line would roughly parallel the Elledge Mill Ditch from West Chaco St. west to South Oliver Dr. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus

Latitude: 36.8264° N
Longitude: 108.0033° W
Datum: NAD 83

Western Terminus

Latitude: 36.8195° N
Longitude: 108.0218° W
Datum: NAD 83

Access: The City of Aztec, New Mexico is located 36 miles south of Durango, Colorado and 15 miles east of Farmington, New Mexico. The east end of the project site can be accessed at the western abutment of the NM Hwy 516 (West Aztec Blvd.) bridge crossing the Animas River. The west end of the project (terminus) is the City of Aztec Sanitary Sewer Plant located at the

end of South Oliver Avenue. The sewer line generally parallels the north side of the Elledge Mill Ditch; crossing the ditch near the terminus (see cover photo).

2.2 Physical Setting:

- **Study Area:** approximately ± 8.52 acres (60-foot wide easement extending 7,188 linear feet) of previously disturbed utility easement.
- **Watershed Name and Size (HUC 8):** Animas Watershed, HUC 14080104, 1,370 sq. mi.
- **Elevation Range of Site:** The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl (Figure 2).
- **Geographic Setting:** The study area is located along the northwestern terrace slope of the Animas River floodplain. The easement, which is not located within the 100-yr floodplain, generally contours the upper terrace edge; generally paralleling the uphill edge of the Elledge Mill Ditch. The study area is bound by mixed-use residential and commercial properties and roadways to the north and west and by the Animas Floodplain to the south and east, which also includes the City of Aztec's Riverfront Park.
- **Geology:** This area is comprised of Quaternary Alluvium derived predominantly from the surrounding San Juan Basin Nacimiento Formation, which is composed of Tertiary Sedimentary rock (NMBGMR 2003).

2.3 Regional Climatic Conditions

The climate of the Aztec area is somewhat dry and mild with an average annual rainfall of 10 inches and an average annual snowfall of 15 inches. January temperatures average 28 degrees Fahrenheit, July averages 74 degrees Fahrenheit, and the overall annual average temperature is 51 degrees (WRCC 2009). At the time of SME's site investigation in December of 2009, the region was experiencing a slight annual drought; approximately 50-60% of normal annual precipitation. The San Juan Mountains, which form the headwaters of the Animas River, also saw a slightly below normal precipitation year (NWS 2009).

2.4 Current Land Use

The linear study area was limited to the existing 60-foot wide utility easement. Consequently, the majority of the study area existed in a disturbed state due to the past and present use of the easement for the subject sewer line. Furthermore, the sewer line is located within paved roadway in two sections of the study area. The land adjacent to the study area consists of many privately owned residential parcels, the seasonally active Elledge Mill Ditch and the city owned Riverfront Park.

3.0 DELINEATION METHODS

The site was inspected on December 10th and 11th, 2009 by SME staff. Wetlands and other Waters of the U.S. (WOUS) in the study area were identified in December of 2009 using the

methodology defined in the Routine Determination procedure set forth in the U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Arid West Supplement (2006). Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. Due to the clearly defined nature of the wetland boundaries and difficult winter conditions at the time of inspection (i.e. frozen soils and dead and desiccated herbaceous layer), no data sheets were produced.

The wetland boundaries were survey-located using Trimble ProXR GPS (sub-meter accuracy) and are depicted on [Figure 5](#) within [Appendix A](#); for ease of reference the wetland areas have been labeled Wetland 1 (W1), Ditch 3 (D3), etc.

Photo point locations labeled as PP1, PP2, etc. on [Figure 5](#) correspond to the photos provided in [Appendix B](#).

4.0 FINDINGS

4.1 Waters of the U.S.

SME staff delineated 1.01 acres of wetland and stream features within the utility easement boundary, which includes 0.24 acre of wet meadow/marsh wetland area (PEM), 0.28 acre of mixed willow/marsh area (PSS/PEM), and 0.49 acre of intermittent riverine streambed (RSB4). All of the 0.49 acre of RSB4 and 0.24 acre of PEM (total of 0.73 acre) are associated directly with the Elledge Mill Ditch. All of the 1.01 acres have been determined to be jurisdictional in nature, including the ditch and abutting wetland edges. SME has made this determination based on the presence of an intermittent hydrologic surface connection to the Animas River, which is a Traditionally Navigable Waterway (TNW). Due to access issues, SME was limited to aerial photo interpretation to determine that a surface connection exists. However, the City may elect to further investigate this apparent connection and the USACE may over-rule this determination for the features directly associated with Elledge Mill Ditch based on other regional or programmatic precedence.

[Table 1](#) below lists the acreage and linear footage of wetland types as classified in accordance with the U.S. Fish and Wildlife Service (USFWS) classification system for wetlands and deepwater habitats (Cowardin et al. 1979). The survey-located boundaries are depicted on [Figure 5](#). [Table 2](#) provides a breakdown of the rationale for Federal jurisdiction.

Table 1. Acreage and Linear Footage of Jurisdictional Waters of the U.S. within the City of Aztec Sewer Outfall Improvement Project in San Juan County, NM.

Waters of the U.S.	Area (acres)	Linear Feet
Herbaceous Wetlands (PEM)	0.24	--
Mixed Shrub/Scrub/Herbaceous Wetlands (PSS/PEM)	0.28	--
Streambed (R4SB)	0.49	Apx. 3,000
TOTAL Waters of the US	1.01	Apx. 3,000

Table 2. Jurisdictional Characteristics of Aquatic Resources within the Aztec Sewer Easement.

Name	Size: Length, width, acreage	Flow Frequency	Flows to	Proximity	Jurisdic tional Status	Rationale
D1-D9 Elledge Mill Ditch	Apx. 8-feet wide 3,000 LF	Intermittent (irrigation)	Surface connection to Animas River is apparent in aerial photos	100 to 400 Feet north of the Animas River Situating above active floodway	WOUS	Major irrigation ditch with apparent downstream surface connection therefore ditch qualifies as RPW
W1, W3, W4, and W6-W11 Wetland Edge of Elledge Mill Ditch	Apx. 1-foot wide on either side of ditch	Intermittent (irrigation)	Surface connection to Animas River is apparent in aerial photos	Abutting RPW	WOUS	Wetland directly abutting RPW
W2 & W5 Wetland Drainage swale	W2 = 0.28 ac. W5 = 0.03 ac.	Intermittent Saturation	Elledge Mill Ditch	Abutting or Adjacent	WOUS	Wetland Abutting or Adjacent to RPW

4.2 Vegetation

The study area is located at the transition of the Animas River floodway and the abandoned floodway terrace. The floodway contains areas of native riparian communities characterized by the dominant presence of cottonwood (*Populus deltoides*), but the terrace slope, on which the study area is located, generally contains a transitional upland community characterized by the dominant presence of three leaf sumac (*Rhus trilobata*), Chinese elm (*Ulmus pumila*) Wood's rose (*Rosa woodsii*) and smooth brome (*Bromus inermis*). Two wetland areas also cross the study area. The eastern wetland area is a willow/phragmites dominated wetland community and a western wetland area is a cattail dominated wetland community that also supports various wetland grasses and rushes including Torrey's rush (*Juncus torreyi*) and scratch grass (*Muhlenbergia asperifolia*). The vegetation located within the easement is largely disturbed due to disturbance related to the original construction and ongoing maintenance activities on the existing sewer line, ditch and overhead utility lines. [Table 3](#) is a list of the species observed onsite during the delineation site visit.

Table 3. Partial Vegetation Species List for the City of Aztec Sewer Outfall Improvement Project in San Juan County, NM.

Scientific Name*	Common Name	Family	Wetland Indicator Status**
TREES			
<i>Acer negundo</i>	box elder	Aceraceae	FACW*
<i>Elaeagnus angustifolia</i>	Russian-olive	Elaeagnaceae	FAC
<i>Juniperus scopulorum</i>	Rocky Mt. juniper	Cupressaceae	NL
<i>Populus deltoides</i>	Fremont cottonwood	Salicaceae	FAC
<i>Ulmus pumila</i>	Siberian elm	Ulmaceae	NL
SHRUBS			

<i>Artemisia frigida</i>	pasture sagebrush	Asteraceae	NL
<i>Atriplex canescens</i>	fourwing saltbush	Chenopodiaceae	UPL
<i>Ephedra torreyana</i>	Mormon tea	Ephedraceae	NL
<i>Ericameria nauseosa</i>	rubber rabbitbrush	Asteraceae	NL
<i>Prunus virginiana</i>	chokecherry	Rosaceae	FAC
<i>Rhus trilobata</i>	skunkbush sumac	Anacardiaceae	NI
<i>Rosa woodsii</i>	Woods' rose	Rosaceae	FACU
<i>Salix exigua</i>	coyote willow	Salicaceae	FACW
<i>Sarcobatus vermiculatus</i>	greasewood	Chenopodiaceae	FAC
VINES			
<i>Clematis ligusticifolia</i>	western white clematis	Ranunculaceae	FAC
<i>Toxicodendron rydbergii</i>	western poison ivy	Anacardiaceae	FACU
FORBS			
<i>Asclepias speciosa</i>	showy milkweed	Asclepiadaceae	FAC
<i>Aster spp.</i>	aster	Asteraceae	----
<i>Bassia scoparia</i>	kochia	Chenopodiaceae	FAC
<i>Carduus nutans</i>	musk thistle	Asteraceae	FACU
<i>Centaurea repens</i>	Russian knapweed	Asteraceae	NL
<i>Cirsium arvense</i>	Canada thistle	Asteraceae	FACU
<i>Conyza canadensis</i>	Canadian horseweed	Asteraceae	FACU
<i>Erigonum sp.</i>	wild buckwheat	Polygonaceae	----
<i>Erodium cicutarium</i>	redstem filaree	Geraniaceae	NL
<i>Glycyrrhiza lepidota</i>	wild licorice	Fabaceae	FAC
<i>Helianthus annuus</i>	sunflower	Asteraceae	FACU
<i>Medicago sativa</i>	alfalfa	Fabaceae	NL
<i>Melilotus officinalis</i>	yellow sweet clover	Fabaceae	FACU
<i>Plantago lanceolata</i>	lanceleaf plantain	Plantaginaceae	FAC
<i>Plantago major</i>	broadleaf plantain	Plantaginaceae	FAC
<i>Rumex crispus</i>	curly dock	Polygonaceae	FAC
<i>Sisymbrium altissimum</i>	tall tumble mustard	Brassicaceae	FACU
<i>Solidago lepida</i>	Canada goldenrod	Asteraceae	FAC
<i>Taraxacum officinale</i>	dandelion	Asteraceae	FACU
<i>Trifolium pratense</i>	red clover	Fabaceae	FACU
<i>Verbascum thapsus</i>	common mullein	Scrophulariaceae	FACU
GRAMINOIDS			
<i>Achnatherum hymenoides</i>	Indian ricegrass	Poaceae	UPL
<i>Agropyron cristatum</i>	crested wheatgrass	Poaceae	NL
<i>Elymus trachycaulus</i>	slender wheatgrass	Poaceae	FACU
<i>Beckmannia syzigachne</i>	slough grass	Poaceae	OBL
<i>Bouteloua gracilis</i>	blue grama	Poaceae	NL
<i>Bromus inermis</i>	smooth brome	Poaceae	FACU
<i>Bromus tectorum</i>	cheatgrass	Poaceae	NL
<i>Carex praegracilis</i>	clustered field sedge	Cyperaceae	FACW
<i>Carex sp.</i>	sedge	Cyperaceae	---
<i>Dactylis glomerata</i>	orchard grass	Poaceae	FACU
<i>Echinochloa crus-galli</i>	barnyard grass	Poaceae	FACW
<i>Elymus canadensis</i>	Canada wildrye	Poaceae	FAC
<i>Equisetum arvense</i>	horsetail	Equisetaceae	FAC
<i>Festuca rubra</i>	red fescue	Poaceae	FAC

<i>Hordeum jubatum</i>	foxtail barley	Poaceae	FAC
<i>Hippochaete hyemalis</i>	scouring rush	Equisetaceae	FACW
<i>Juncus arcticus</i>	wire rush	Juncaceae	FACW
<i>Juncus torreyi</i>	Torrey's rush	Juncaceae	FACW
<i>Muhlenbergia asperifolia</i>	scatchgrass	Poaceae	FACW
<i>Pascopyrum smithii</i>	western wheat	Poaceae	FAC
<i>Phalaris arundinacea</i>	reed canary grass	Poaceae	FACW
<i>Phleum pretense</i>	timothy	Poaceae	FACU
<i>Phragmites australis</i>	common reed	Poaceae	FACW
<i>Pleuraphis jamesii</i>	galleta grass	Poaceae	NL
<i>Poa</i> sp.	bluegrass	Poaceae	FAC
<i>Schoenoplectus pungens</i>	three-square	Cyperaceae	OBL
<i>Typha latifolia</i>	broadleaf cattail	Typhaceae	OBL

- OBL: Almost always is a hydrophyte, rarely in uplands
- FAC: Commonly occurs as either a hydrophyte or non-hydrophyte
- UPL: Rarely is a hydrophyte, almost always in uplands
- NI: No Indicator Insufficient information available
- NL: Not Listed Generally indicates upland species
- FACW: Usually is a hydrophyte but occasionally found in uplands
- FACU: Occasionally is a hydrophyte but usually occurs in uplands
- * Scientific names according to Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland (Kartesz 1994) and National List of Vascular Plant Species that Occur in Wetlands.
- * 2012 NWPL is regionalized along the same 10 wetland delineation supplement regions. Wetland indicator status for the Rio Blanco Bridge Replacement on County Road 337A project is based on the Arid West Region.

4.3 Soils

The U.S. Department of Agriculture (USDA) has mapped soils within the study area as part of the digital soil mapping effort for San Juan County ([Figure 3](#)). The soils of the study area are provided on the USDA's Web Soil Survey (WSS). Soils mapped within the study area boundaries include *Fruitland loam*, *Fruitland sandy loam*, *Riverwash*, *Stumble loamy sand*, *Turley clay loam*, *Walrees loam*, and *Werlog loam*. Only the *Riverwash* soil unit is listed on the State list of Hydric Soils. The following section provides brief descriptions of these soil types taken from the USDA Soil Series Descriptions (USDA 2009).

Riverwash (R)

- Approximately 0% project site
- Hydric

This unit, which only borders the edge of the easement, consist of poorly drained undifferentiated sand, gravel and cobbles in meanders and oxbows or major drainageways on alluvial valley floors. The unit has a high water table throughout the year and is subject to frequent flooding. It supports little or no vegetation. The small amount of vegetation that occurs consists of water tolerant grasses and scattered cottonwood trees and willows.

Fruitland sandy loam, 2 - 5 % slopes (Fs) & Fruitland loam, 5 - 8 % slopes (Fw)

- Coarse-loamy, mixed, superactive, calcareous, mesic Typic Torriorthents
- Approximately 68% project site
- Non-hydric.

The Fruitland series consists of very deep, well drained and somewhat excessively drained soils that formed in eolian material and moderately coarse textured alluvium and stream alluvium derived from sandstone and shale. Fruitland soils are on stream terraces on valley floors, alluvial fans on valley sides, and summits of mesas, and have slopes of 0 to 30 percent.

Soil Moisture: Usually dry, intermittently moist in some part of the soil moisture control section December through March and July through September. The soil is driest during May and June. Typic aridic moisture regime.

These soils are used chiefly for irrigated cropland and native rangeland. Present vegetation is Indian ricegrass, galleta, sand dropseed, Mormon-tea, blue grama, fourwing saltbush and winterfat.

Warlees loam (Wa)

- *Fine-loamy over sandy or sandy-skeletal, mixed, superactive, calcareous, mesic Oxyaquic Ustifluvents*
- *Approximately 2% project site*
- *Non-hydric.*

The Walrees series consists of very deep, somewhat poorly drained soils that formed in medium and moderately fine textured alluvium underlain by sand, pebbles, and cobbles. These soils are on flood plains and low river terraces. Slopes are 0 to 2 percent.

The Walrees series has slow runoff; moderately slow permeability in the upper part and very rapid permeability below. These soils are subject to occasional or frequent brief periods of flooding between June and September. It is used for irrigated crops and pasture, and wildlife habitat. The present vegetation is inland saltgrass, alkali sacaton, fourwing saltbush, Russian-olive, and Fremont cottonwood.

Werlog (Wr)

- *Fine-loamy, mixed, active, calcareous, mesic Aquic Ustifluvents*
- *Approximately 2% project site*
- *Non-hydric.*

The Werlog series consists of very deep, somewhat poorly drained soils that formed in alluvium derived from sandstone and shale. Werlog soils are on flood plains and low stream terraces. Slopes are 0 to 3 percent. The Werlog series have slow runoff; moderately slow permeability. This soil has only a rare hazard of overbank flooding from adjacent streams due to water flow control by large upstream dams.

Typically, the soil moisture control section is intermittently moist in some or all parts less than 40 percent of the time. Moisture accumulates from snowfall in winter, capillary rise above the water table, and rainfall. It is usually dry in late May and June. Typic aridic moisture regime based on precipitation. Depth to seasonal high water table - 2.0 to 3.5 feet; present between March and November.

Werlog soils are used for irrigated cropland and pasture, urban development, and livestock grazing. Present vegetation is inland saltgrass, alkali sacaton, kochia, Russian-olive, saltcedar, and Fremont cottonwood. Common crops are alfalfa, corn, and grasses and legumes for pasture.

Stumble loamy sand, 0-3% slopes (SV)

- *Mixed, mesic Typic Torripsamments*
- *Approximately 3% project site*
- *Non-hydric.*

The Stumble series consists of very deep, somewhat excessively drained soils with rapid permeability and high saturated hydraulic conductivity that formed in eolian sand and alluvium derived from mixed rocks. Stumble soils are on inset fans, fan skirts, pediments, alluvial flats, alluvial fans, sand sheets, and fan aprons. In New Mexico these soils are located on slopes that range up to 40 percent on backslopes of fan remnants.

Stumble soils are used for livestock grazing and wildlife habitat. The vegetation is mainly littleleaf horsebrush, low Douglas rabbitbrush, desert needlegrass, fourwing saltbush, and Indian ricegrass.

Turley clay loam, 1 - 3 % slopes (Tr)

- *Fine-loamy, mixed, active, calcareous, mesic Typic Torriorthents*

- *Approximately 26% project site*
- *Non-hydric.*

The Turley series consists of very deep, well drained, moderately slowly permeable soils that formed from alluvium and eolian materials derived from sandstone and shale. Turley soils are on terraces, fan remnants, and alluvial fans and have slope of 0 to 8 percent.

Irrigated cropland and urban development. Present native vegetation is galleta, blue grama, western wheatgrass and alkali sacaton. Irrigated crops are alfalfa, corn, sorghum, pasture and apples.

In New Mexico it occurs in both the typic aridic-no big sagebrush zone and the ustic aridic-big sagebrush zone.

SME was unable to observe soil characteristics due to the fact that the upper soil profile was frozen at the time of inspection. Also, due to the extensive disturbances associated with the existing easement much of the native soil profile is likely to be absent or highly disturbed. Due to the difficulty viewing the soil profiles and the likely disturbed nature of the soils, SME utilized the problematic soil procedures (as outlined in the Arid West Supplement) when delineating the wetland features.

4.4 Hydrology

The Elledge Mill Irrigation Ditch is an artificial waterway that maintains downstream surface connection to the Animas River. The wetlands that line the banks of the ditch are primarily supported by this artificial water source. The other wetland areas within the study area are supported primarily by concentrated surface runoff in swale features.

The Elledge Mill Ditch flows during the growing season and may also intercept and convey water during storm events. Average annual precipitation is approximately 7 inches (NRCS).

Physical evidence of hydrology within the wetland areas includes evidence of ponding and drainage patterns.

4.5 Limitations

Field indicators can change with variations in hydrology and other factors. This report assesses the potential for wetlands at the site at the time of our review and does not address conditions at a given time in the future. We make no other warranties, either expressed or implied, and our report is not a recommendation to buy, sell or develop the property.

This report does not constitute a Jurisdictional Determination of Waters of the United States since such determinations must be verified by the USACE or the Natural Resources Conservation Service (NRCS) (as applicable), and are subject to review by the U.S. Environmental Protection Agency (USEPA).

5.0 SUMMARY

In SME's opinion 1.01 acre of jurisdictional wetlands and stream channel exist within the study area as defined by the utility easement boundary. These findings are based on examination of the vegetation, soils and hydrology and available reference documents at the time of our

investigation, as well as an analysis of connectivity or proximity to TNWs. This report was produced in support of a request by the City of Aztec for an official wetland delineation verification letter from the USACE.

6.0 REFERENCES

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U.S. Army Corps of Engineers (USACE). December 2006. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. U.S. Army Engineer Research and Development Center. Vicksburg, MS.

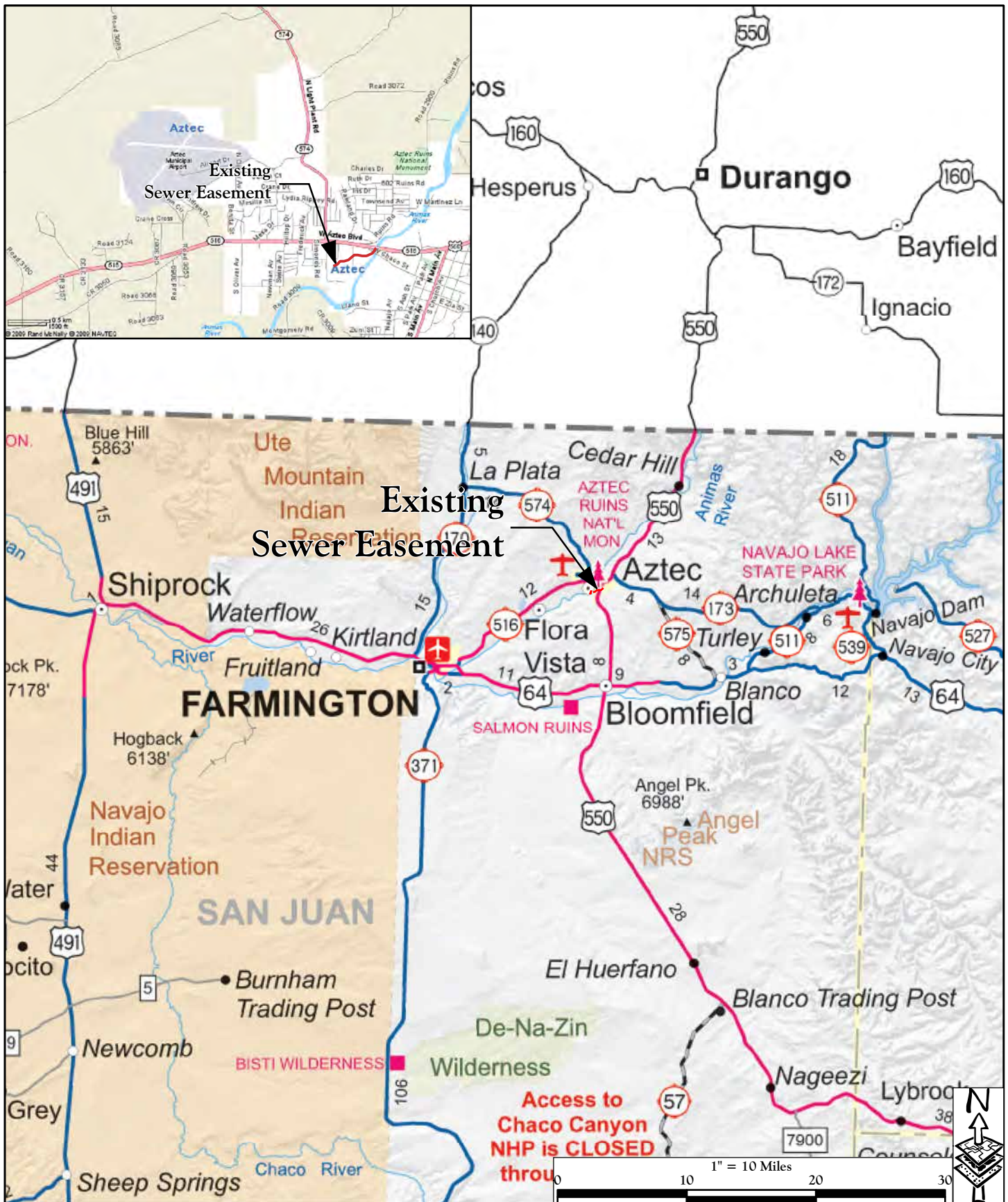
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APPENDIX A: Figures



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	<p>ROAD/VICINITY MAP</p> <p>WETLAND DELINEATION AZTEC SEWER OUTFALL LINE</p>	<p>FIGURE 1</p> <p>Source: Highway Map Provided by New Mexico Department of Transportation; Detailed street map derived from Rand McNally On-Line.</p>
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PROJECT LOCATION:

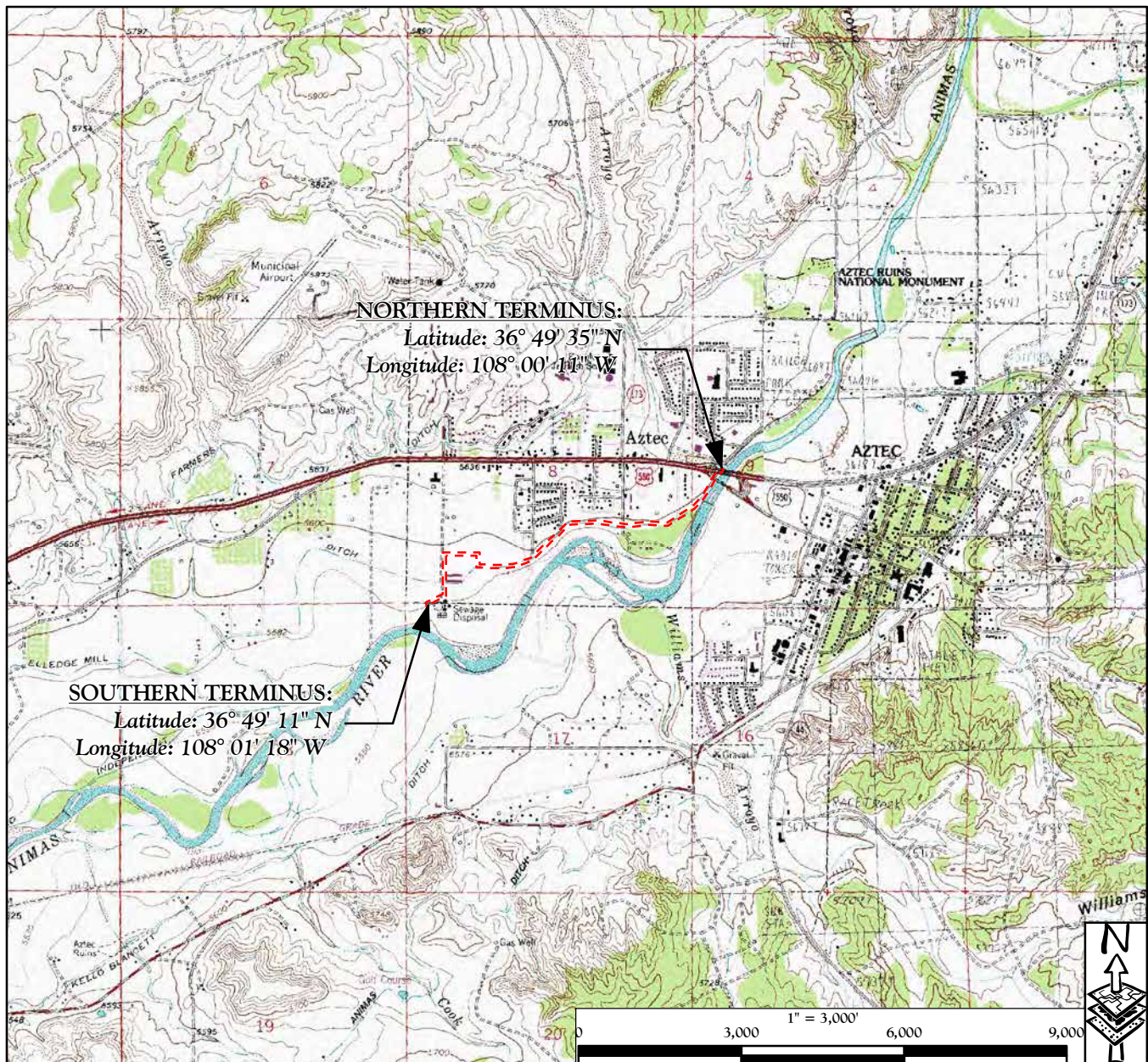
Sections 8,9,17, Township 30 North, Range 11 West.
New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

Legend

 Proposed Project Easement



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

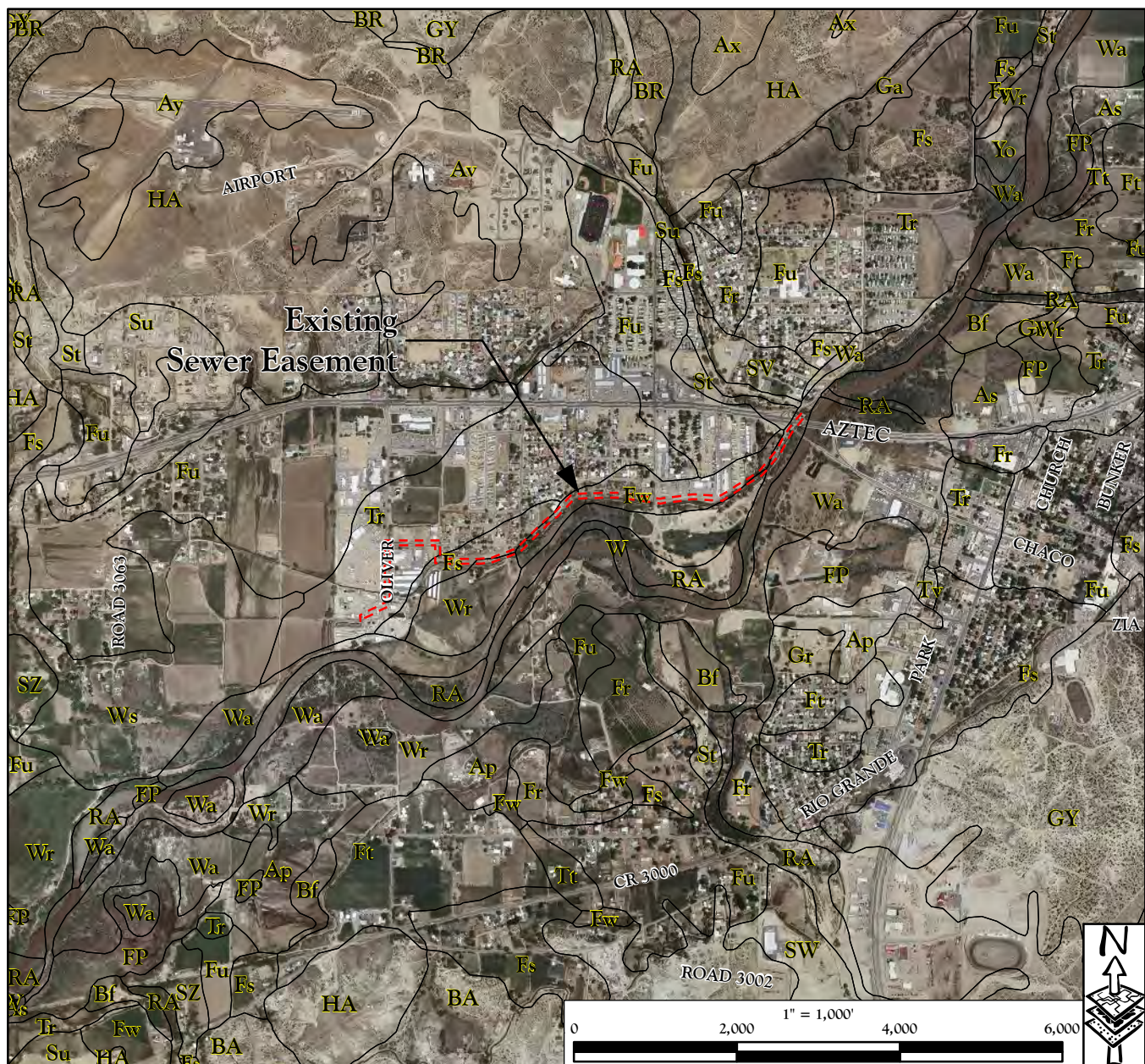
PROJECT LOCATION MAP

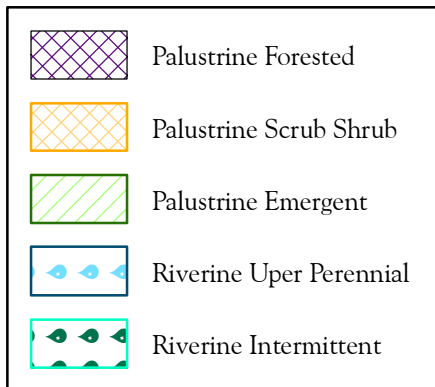
WETLAND DELINEATION
AZTEC SEWER OUTFALL LINE

FIGURE 2

Source: Aztec, Flora Vista
New Mexico. 7.5' USGS Quadrangle

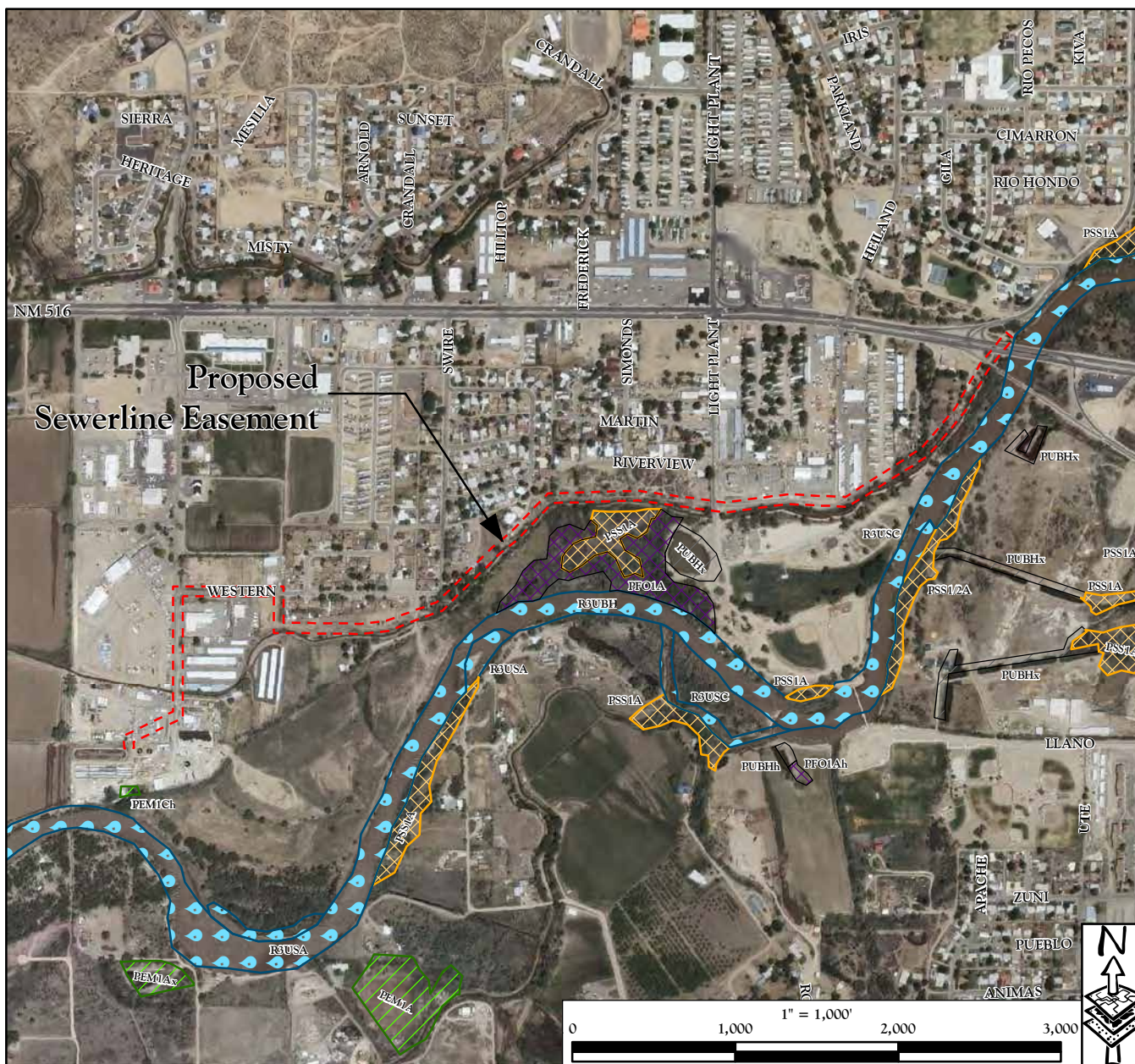
W: Lakes, rivers, reservoirs.





NWI DEFINITIONS:

PEM1Ax: Palustrine Emergent, Persistent, Temporarily Flooded, Excavated.
 PEM1C: Palustrine Emergent, Persistent, Seasonally Flooded.
 PEM1Ch: Palustrine Emergent, Persistent, Seasonally Flooded, Diked/Impounded.
 PFO1A: Palustrine Forested, Broad-Leaved Deciduous, Temporarily Flooded.
 PFOBH: Palustrine Forested, Saturated, Permanently Flooded.
 PSS1A: Palustrine Scrub-Shrub, Broad-Leaved Deciduous, Temporarily Flooded.
 PSS1Ah: Palustrine Scrub-Shrub, Broad-Leaved Deciduous, Temporarily Flooded, Diked/Impounded.
 PSS1Ax: Palustrine Scrub-Shrub, Broad-Leaved Deciduous, Temporarily Flooded, Excavated.
 R3USA: Riverine, Upper Perennial, Unconsolidated Shore, Temporarily Flooded.
 R3USC: Riverine, Upper Perennial, Unconsolidated Shore, Seasonally Flooded.
 R4USJ: Riverine, Intermittent, Unconsolidated Shore, Intermittently Flooded.



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 Durango, Colorado 81301
 www.sme-env.com (970) 259-9595

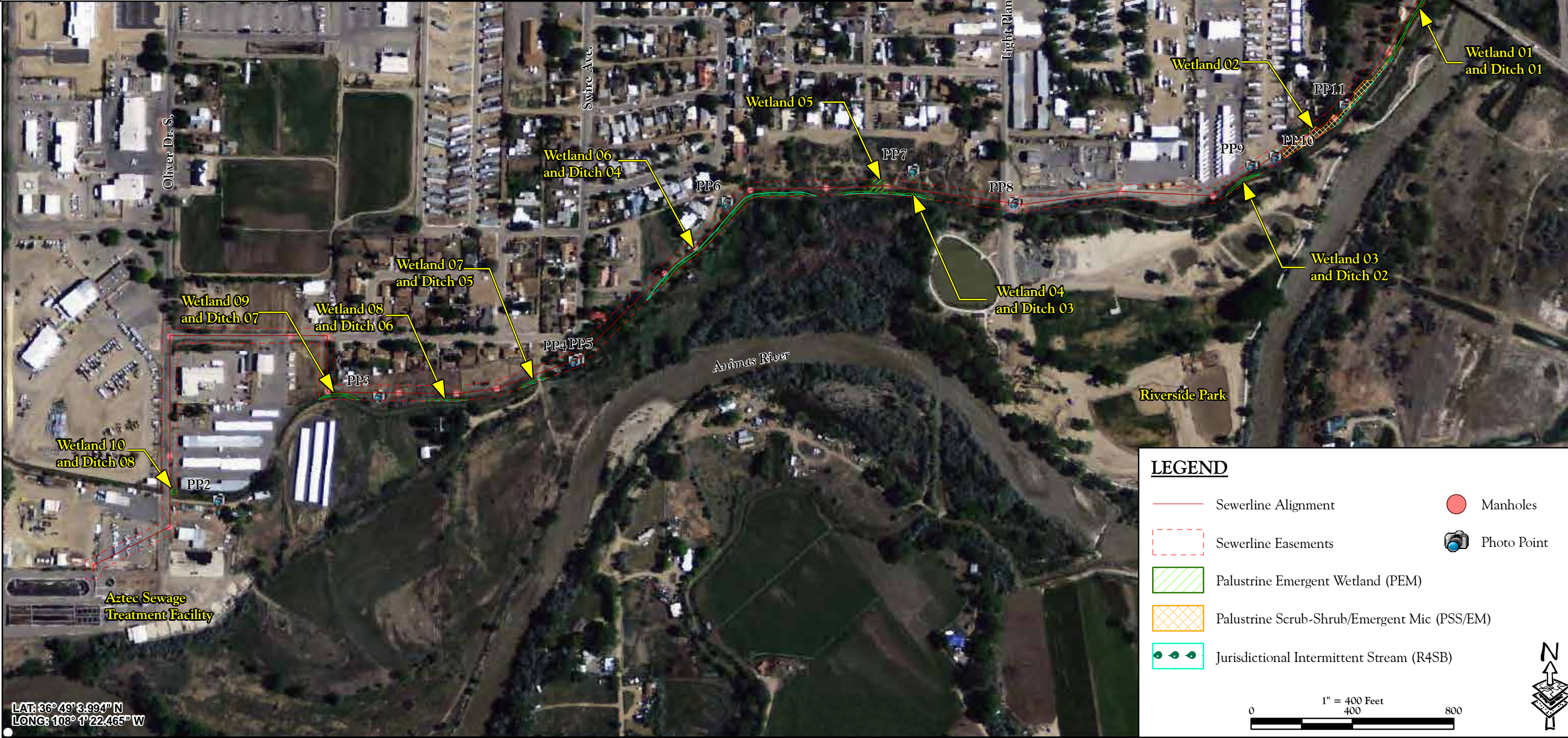
NATIONAL
 WETLANDS INVENTORY MAP
 WETLAND DELINEATION
 AZTEC SEWER OUTFALL LINE

FIGURE 4

Source:
 Photo Taken in 2009 Provided by N.A.I.P. (USDA).
 Wetland Data Provided by National Wetlands Inventory.

1. Aerial photograph obtained from National Agriculture Imagery Program (USDA). Aerial photo taken in 2011.
2. Utility easement boundary provided by the City of Aztec.
3. SME Environmental, Inc. (SME) staff visited the site on December 10 and 11, 2009 to assess and delineate the boundaries of wetlands and other Waters of the U.S. (WOUS) in the study area using the methodology defined in the Routine Determination procedure set forth in the U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the USACE Jurisdictional Determination Form Instructional Guidebook ("Rapanos Guidance") (USACE 2007).
4. Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions.
5. The boundaries of wetlands and other WOUS were survey-located using Trimble GeoExplorer 2008 Series (sub-meter accuracy).
6. For ease of reference, jurisdictional wetlands and/or other WOUS have been labeled with unique identifiers. 'D' denotes ditch, and 'W' denotes wetland. The type of feature is followed by a sequential numerical designation.
7. All features identified in the study area appear to be jurisdictional features due to the apparent downstream surface connection of Elledge Mill Ditch to the Animas River. (Subject to USACE concurrence).
8. All wetlands and other WOUS boundaries, depicted hereon, are subject to modification until formal jurisdictional verification has been completed by the USACE.
9. Please be aware that impacts to wetlands and other WOUS may require authorization from Local, State and/or Federal regulatory agencies.

Area Name	Type	Jurisdiction	Acreage	Square Feet	Centroid X	Centroid Y
D1	R4SB	Y	0.15	6396	-108.003924	36.825577
D2	R4SB	Y	0.02	944	-108.006282	36.823742
D3	R4SB	Y	0.06	2555	-108.011090	36.823616
D4	R4SB	Y	0.19	8487	-108.013289	36.823197
D5	R4SB	Y	0.02	785	-108.015819	36.821575
D6	R4SB	Y	<0.01	633	-108.016994	36.821375
D7	R4SB	Y	0.03	1320	-108.018443	36.821418
D8	R4SB	Y	<0.01	235	-108.020672	36.820368
W1	PEM	Y	0.05	2239	-108.003793	36.825732
W2	PSS/PEM	Y	0.28	12291	-108.005085	36.824434
W3	PEM	Y	0.02	688	-108.006260	36.823757
W4	PEM	Y	0.06	2481	-108.011081	36.823631
W5	PEM	Y	0.02	1074	-108.011168	36.823755
W6	PEM	Y	0.07	2973	-108.013275	36.823208
W7	PEM	Y	<0.01	171	-108.015836	36.821579
W8	PEM	Y	<0.01	189	-108.016997	36.821382
W9	PEM	Y	<0.01	378	-108.018446	36.821417
W10	PEM	Y	<0.01	300	-108.020667	36.820371
Total			1.01	44,139		



PRELIMINARY NOT
FOR CONSTRUCTION OR
RECORDING

**AZTEC SEWER OUTFALL LINE
WETLAND DELINEATION MAP
WETLAND DELINEATION REPORT**

Date: 11/14/2012
Project #: 120027
Name: Figure 4
Scale: 1" = 400'

Notes:
Datum: NAD 1983
Projection: State
Plane New Mexico
West, Feet.

APPENDIX B: Photo Documentation

PHOTO DOCUMENTATION
CITY OF AZTEC SEWER OUTFALL LINE
(Photos taken 12/10/09 & 12/11/09 by NK & PH)

Photos progress from east to west along the sewer easement
(some photo locations are shown on Figure 5).



Photo 1: Sewer Alignment looking SW under bridges near eastern terminus of project Elledge Mill Ditch (EMD) at left.



Photo 3: Sewer alignment looking SW from same location as photo 2, EMD at left, steep terrace hillside at right.



Photo 2: Sewer Alignment looking NE at overpasses and EMD at right.



Photo 4: View from south side of EMD looking NE. Sewer alignment on raised bench at left, ditch edge dom. by *S. exigua* and *Carex sp.*,



Photo 5: View of sewer alignment looking SW into Wetland-2, which is dominated by *Salix exigua* and *Phragmites australis*.



Photo 7: View of sewer alignment looking E into western portion of Wetland-2, which is dominated by *Phragmites australis*.



Photo 6: View from south side of EMD looking NE. Sewer alignment in dense willow, minimal *Populus fremontii* & *Elaeagnus angustifolia* overstory. Overhead powerline crosses easement.



Photo 8: View from south side of EMD looking W. at Riverfront park which contains sparse but mature *P. fremontii*



Photo 9: View of sewer alignment looking SW into terrace slope *Rosa woodsii* (red shrub) and *Rhus trilobata* (tall grey).



Photo 11: View of sewer alignment looking E. (note manhole).



Photo 10: View of sewer alignment. This section of the sewer easement is located under the road that parallels the EMD.



Photo 12: View looking E at west end of Riverside Park. Sewer alignment app. located in narrow snow patch at right.



Photo 13: View looking W at Wetland-5 (*Typha* in middle of photo) Sewer alignment app. follows narrow snow patch at left.



Photo 14: View of sewer alignment looking E. EMD at right.



Photo 15: Panoramic view looking SE to SW at 13 acre willow/cottonwood complex located adjacent to the south side of the sewer easement which tightly parallels the EMD in middle of photo.

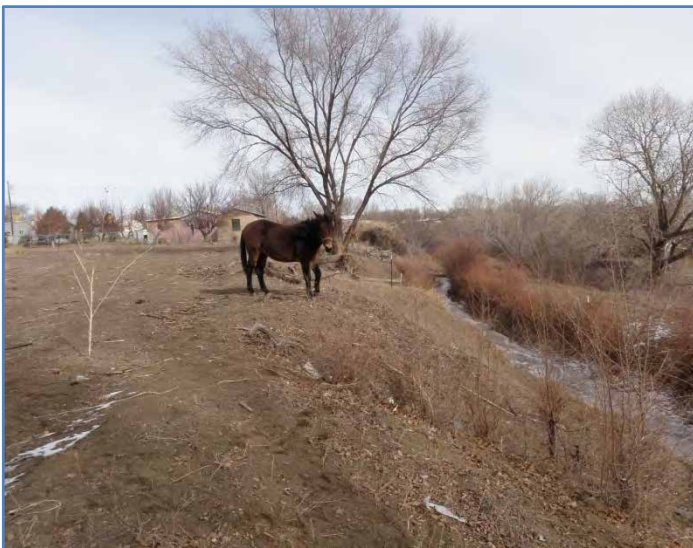


Photo 16: View of sewer alignment looking NE. Sewer alignment app. follows top of slope, EMD at right.



Photo 17: View of sewer alignment looking W. Sewer manhole under cone.



Photo 18: View of sewer alignment looking E



Photo 20: View of sewer alignment proposed crossing of EMD and Wetland-11, looking NE.



Photo 19: View of sewer alignment looking W.



Photo 21: View of sewer alignment looking N along South Oliver Ave. near the western terminus.

Appendix D

Plan Drawings

SAN JUAN COUNTY, NEW MEXICO



DATE _____

SHEET INDEX

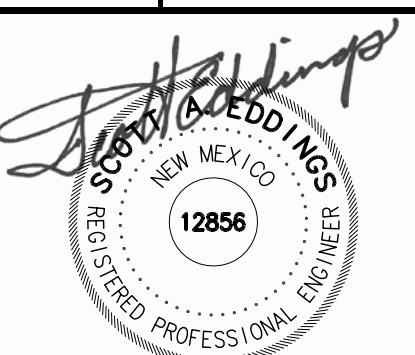
P1	PROJECT TITLE SHEET
P2	GENERAL NOTES AND ABBREVIATIONS
P3	PROJECT LEGEND
U1	UTILITY TITLE SHEET
U2-U8	UTILITY PLAN & PROFILE SHEETS
U9-U11	UTILITY DETAILS

HUITT-ZOLLARS
Huitt-Zollars, Inc.
333 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141
Fax (505) 892-3259

CITY OF AZTEC

PROJECT TITLE SHEET

**SANITARY SEWER LINE
AZTEC, NEW MEXICO**



1/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

DRAWN BY: LRT

CHECKED BY: SAE

DATE: NOV. 13, 2012

PW CHK: -

SHEET:

P1

ALL IMPROVEMENTS, UNLESS OTHERWISE MODIFIED IN THE PROJECT SPECIFICATIONS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, AS PREPARED BY THE AMERICAN PUBLIC WORKS ASSOCIATION, AS AMENDED UNLESS OTHERWISE NOTED THROUGH ALL CURRENT UPDATES OR THE NEW MEXICO DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, CURRENT EDITION.

STANDARD DRAWINGS REFER TO STANDARD DRAWINGS FOR THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, PREPARED BY THE NEW MEXICO CHAPTER, AMERICAN PUBLIC WORKS ASSOCIATION, AS AMENDED UNLESS OTHERWISE NOTED.

3. THE CONTRACTOR AND DEVELOPER AGREE THAT HE/SHE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
4. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT THE WRITTEN APPROVAL OF THE OWNER, ENGINEER AND ALL APPROVAL SIGNATORIES. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS OR TECHNIQUES OR FOR THE PROSECUTION OF THE WORK AS SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.
5. UNLESS OTHERWISE PROVIDED AS PART OF THE CONSTRUCTION PLANS, A COMPLETE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR WHEN ANY PORTION OF THE WORK IS IN THE PUBLIC RIGHT-OF-WAY. ALL CONSTRUCTION SIGNING, BARRICADING AND CHANNELIZATION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION. THE PLAN SHALL BE SUBMITTED TO THE DEPT. OF PUBLIC INFRASTRUCTURE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL NOT IMPLEMENT THE TRAFFIC CONTROL PLAN UNTIL APPROVAL OF THE PLAN HAS BEEN RECEIVED. THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE CITY OF AZTEC DEPARTMENT OF PUBLIC INFRASTRUCTURE PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL DESIGNATE AT LEAST ONE EMERGENCY CONTACT PERSON, AND SHALL PROVIDE TELEPHONE NUMBERS WHERE THIS PERSON CAN BE CONTACTED AT ANY TIME. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER, THE ENGINEER AND THE CITY OF AZTEC DEPARTMENTS OF PUBLIC SAFETY AND PUBLIC INFRASTRUCTURE.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS FROM ALL JURISDICTIONAL AUTHORITIES PRIOR TO START OF CONSTRUCTION.
8. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY, HEALTH, AND ENVIRONMENTAL PROTECTION.
9. EXISTING SITE IMPROVEMENTS WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. REPAIRS SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION OF THE REPAIRS. REPAIRS SHALL BE ACCEPTED BY THE OWNER PRIOR TO FINAL PAYMENT.
10. THE CONTRACTOR SHALL USE THE DESIGNATED STAGING AREAS FOR STORAGE OF EQUIPMENT AND MATERIAL. NO MATERIAL OR EQUIPMENT MAY BE STORED OR LEFT ONSITE AT ANY OTHER LOCATION. THE OWNER ASSUMES NO LIABILITY FOR CONTRACTOR'S EQUIPMENT AND MATERIAL IN THE STAGING AREA. SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IF NO STAGING AREA IS DESIGNATED ON THESE PLANS, AN OFF SITE STAGING AREA SHALL BE PROVIDED AT THE CONTRACTORS EXPENSE, OR THE CONTRACTOR MAY NEGOTIATE WITH THE OWNER TO USE AN ONSITE AREA.
11. ALL STATIONING REFERS TO THE CENTERLINE OF THE RIGHT-OF-WAY UNLESS OTHERWISE NOTED. STATIONING OF CHANNELS OR PIPES IN DRAINAGE EASEMENTS REFERS TO THE CENTERLINE OF CHANNEL OR PIPE, UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING, IN ADVANCE OF HIS/HER CONSTRUCTION OPERATIONS, IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC. ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION IS EVIDENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
13. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
14. A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED PRIOR TO CONSTRUCTION. CONTACT THE CITY OF AZTEC PUBLIC WORKS DIRECTOR.

1. EARTHWORK QUANTITIES INDICATED ON THESE PLANS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL COMPUTE HIS OWN QUANTITIES FOR BIDDING PURPOSES, OTHERWISE PAYMENT FOR EARTHWORK WILL BE BASED ON THE ENGINEER'S ESTIMATED QUANTITIES.
2. THE CONTRACTOR SHALL IMPLEMENT THE APPROVED SWPPP AND INSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.

1. UNLESS OTHERWISE SPECIFIED SUB GRADE SOILS AND STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE ASTM D-1557 MAXIMUM DENSITY.

	PERCENT (%) COMPACTION
<u>MATERIALS</u>	
STRUCTURAL FILL IN THE BUILDING AREA	95
SUB BASE FOR SLAB SUPPORT	95
MISCELLANEOUS BACK FILL BELOW STRUCTURAL FILL OR ROAD PAVEMENT	95
MISCELLANEOUS BACK FILL BELOW UNPAVED, NON-BUILDING AREAS	90
ROAD PAVEMENT SUB GRADE	95
SIDEWALK SUB GRADE	95
CURB AND GUTTER SUB GRADE	95

1. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST AND EROSION CONTROL REGULATIONS. THE CONTRACTOR SHALL PREPARE AND OBTAIN ANY NECESSARY DUST OR EROSION CONTROL PERMITS FROM REGULATORY AGENCIES.

- THE CONTRACTOR SHALL PROMPTLY REMOVE ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY TO KEEP IT FROM WASHING OFF THE PROJECT SITE.
3. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO OTHER PROPERTY BY CONSTRUCTING TEMPORARY EROSION CONTROL BERMS OR INSTALLING SILT FENCES AT THE PROPERTY LINES AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLAN.
4. THE CONTRACTOR SHALL MITIGATE EROSION OF TEMPORARY OR PERMANENT DIRT SWALES BY INSTALLING CHECK DAMS IN THE SWALES PERPENDICULAR TO THE DIRECTION OF FLOW, AND AT INTERVALS SPECIFIED ON THE STORM WATER POLLUTION PREVENTION PLAN.
5. THE CONTRACTOR SHALL WET THE SOIL AS NEEDED TO KEEP IT FROM BLOWING. WATERING, AS REQUIRED FOR CONSTRUCTION AND DUST CONTROL, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO MEASUREMENT OR PAYMENT SHALL BE MADE THEREFOR. CONSTRUCTION AREAS SHALL BE WATERED FOR DUST CONTROL IN COMPLIANCE WITH GOVERNMENT ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SUPPLYING WATER AS REQUIRED.
6. ANY AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY LANDSCAPING OR AN IMPERVIOUS SURFACE SHALL BE REVEGETATED WITH NATIVE GRASS SEEDING. WHEN CONSTRUCTION ACTIVITIES CEASE AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME WITHIN 21 DAYS, STABILIZATION MEASURES MUST BE INITIATED. UNLESS INDICATED OTHERWISE ON THESE PLANS OR ON THE LANDSCAPING PLAN, NATIVE GRASS SEEDING SHALL BE CLASS A SEEDING PER SECTION 1011 AND 1012 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION..
7. ALL WASTE PRODUCTS FROM THE CONSTRUCTION SITE, INCLUDING ITEMS DESIGNATED FOR REMOVAL, CONSTRUCTION WASTE, CONSTRUCTION EQUIPMENT WASTE PRODUCTS (OIL, GAS, TIRES, ETC.) GARBAGE, GRUBBING, EXCESS CUT MATERIAL, VEGETATIVE DEBRIS, ETC. SHALL BE APPROPRIATELY DISPOSED OF OFF SITE AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMITS REQUIRED FOR HAUL OR DISPOSAL OF WASTE PRODUCTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE WASTE DISPOSAL SITE COMPLIES WITH GOVERNMENT REGULATIONS REGARDING THE ENVIRONMENT, ENDANGERED SPECIES AND ARCHAEOLOGICAL RESOURCES.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REPORTING OF SPILLS OF HAZARDOUS MATERIALS ASSOCIATED WITH THE CONSTRUCTION SITE. HAZARDOUS MATERIALS INCLUDE GASOLINE, DIESEL FUEL, MOTOR OIL, SOLVENTS, CHEMICALS, PAINTS, ETC. WHICH MAY BE A THREAT TO THE ENVIRONMENT. THE CONTRACTOR SHALL REPORT THE DISCOVERY OF PAST OR PRESENT SPILLS TO THE NEW MEXICO ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE AT 1-(505)-827-9329.
9. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING SURFACE AND UNDERGROUND WATER. CONTACT WITH SURFACE WATER BY CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL BE MINIMIZED. EQUIPMENT MAINTENANCE AND REFUELING OPERATIONS SHALL BE PERFORMED IN AN ENVIRONMENTALLY SAFE MANNER IN COMPLIANCE WITH GOVERNMENT REGULATIONS.
10. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING CONSTRUCTION NOISE AND HOURS OF OPERATION.
11. WHERE STORM INLETS ARE SUSCEPTIBLE TO IN FLOW OF SILT OR DEBRIS FROM CONSTRUCTION ACTIVITIES, PROTECTION SHALL BE INSTALLED ON THEIR UPSTREAM SIDE.
12. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON-SITE AT ALL TIMES, AND SHALL COMPLY WITH THE REQUIREMENTS INDICATED ON THAT PLAN.

1. THE CONTRACTOR SHALL DEVELOP AND SUBMIT A BY-PASS PUMPING PLAN TO THE CITY FOR APPROVAL PRIOR TO INITIATING ACTIVITIES.
2. CONTRACTOR SHALL CERTIFY BYPASS SYSTEM MEETS REQUIREMENTS OF CODES, AND REGULATORY AGENCIES HAVING JURISDICTION.
3. SCHEDULE AND PERFORM WORK IN MANNER THAT DOES NOT CAUSE OR CONTRIBUTE TO INCIDENCE OF OVERFLOWS, RELEASES OR SPILLS OF SEWAGE FROM SANITARY SEWER OR BYPASS OPERATION.
4. IN THE EVENT OF A SPILL OR OVERFLOW THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS ATTRIBUTABLE TO THE SPILL OR OVERFLOW EVENT.

1. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO SURFACING OF THE STREETS. ALL WATER VALVE BOXES AND ELECTRICAL, TELEPHONE, TELEVISION AND SEWER MANHOLES IN THE CONSTRUCTION AREA SHALL BE ADJUSTED TO FINISH GRADE.
2. ALL SIGNS, BARRICADES, CHANNELIZATION DEVICES, PAVEMENT MARKINGS, SIGN FRAMES AND ERECTION OF SUCH DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" LATEST EDITION.
3. ALL STREET STRIPING ALTERED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR TO MATCH THE ORIGINAL CONDITIONS (I.E. TYPE, SPACING) AT THE LOCATION PRIOR TO CONSTRUCTION, OR AS SHOWN IN THIS PLAN SET.
4. STREET GRADES SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING GRADES UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SMOOTH TRANSITIONS SHALL BE MADE BETWEEN EXISTING PAVEMENT WHICH REMAINS IN PLACE AND PAVEMENT WHICH IS REPLACED. WHEN ABUTTING NEW PAVEMENT TO EXISTING, SAWCUT BACK EXISTING PAVEMENT TO A NEAT, STRAIGHT LINE AS REQUIRED TO REMOVE ANY BROKEN OR CRACKED PAVEMENT.
5. CONTRACTOR SHALL NOTIFY THE CITY OF AZTEC PUBLIC WORKS DEPARTMENT OF ANY ROADWAY OR LANE CLOSURES AT LEAST 48 HOURS IN ADVANCE.
6. A STREET CUT PERMIT MUST BE ACQUIRED FROM, AND TRAFFIC CONTROL PLAN APPROVED BY THE CITY OF AZTEC PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION.
7. ALL ASPHALT PAVEMENT UNLESS OTHERWISE MODIFIED IN THE PROJECT SPECIFICATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", LATEST EDITION.
8. ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY DEPT. OF PUBLIC INFRASTRUCTURE ENGINEER.

1. IF ANY UTILITY LINES, PIPELINES OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OWNER OR FROM EXISTING PLANS, AND THIS INFORMATION MAY BE INCOMPLETE, OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE ENGINEER HAS NOT UNDERTAKEN ANY FIELD VERIFICATION OF THESE LOCATIONS, LINE SIZES OR MATERIAL TYPE, MAKES NO REPRESENTATION THERETO, AND ASSUMES NO RESPONSIBILITY ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE OR UNDERGROUND INSTALLATION IN OR NEAR THE AREA IN ADVANCE OF AND DURING ANY EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND FACILITIES. IN PLANNING AND CONDUCTING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

2. THE CONTRACTOR SHALL NOTIFY NEW MEXICO ONE CALL, INC. AT 260-1990 AT LEAST TWO WORKING DAYS PRIOR TO STARTING WORK ON THIS PROJECT.
3. CONSTRUCTION NOTICE. CONTRACTOR SHALL NOTIFY THE CITY OF AZTEC PUBLIC WORKS DEPARTMENT, OF INTENT TO BEGIN CONSTRUCTION AT LEAST 48 HOURS IN ADVANCE.
4. SEWER/WATER LINES SHALL BE PLACED IN SEPARATE TRENCHES A DISTANCE OF 15 FEET TYPICALLY OR A MINIMUM OF 10 FEET APART HORIZONTALLY. THE WATER LINE SHALL BE PLACED A MINIMUM OF 1.5 FEET HIGHER IN ELEVATION THAN THE SEWER. AT ALL CROSSINGS OF WATER AND SEWER LINES, THE WATER LINE SHALL BE A MINIMUM OF 1.5 HIGHER THAN THE SEWER OR THE SEWER LINE SHALL BE C-900 PRESSURIZED PIPE.
5. SEWER & WATER LINE DISTANCES SHOWN IN PLANS ARE HORIZONTAL DISTANCES WITHOUT REGARD TO SLOPE OF PIPE OR PROJECT STATIONING.
6. ALL MATERIALS MUST BE FROM APPROVED CITY OF AZTEC PRODUCTS LIST.
7. COORDINATION OF UTILITY SPOTTING AND RELOCATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

1. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE CITY OF AZTEC PUBLIC WORKS DEPARTMENT TO OPERATE ANY VALVE OR FIRE HYDRANT INCLUDING NEW WATERLINES AND EXTENSIONS TO THE WATER SYSTEM WHICH HAVE NOT YET BEEN ACCEPTED BUT ARE CONNECTED TO THE EXISTING WATER SYSTEM. ONCE APPROVAL HAS BEEN VERIFIED, THE CONTRACTOR MUST CONTACT THE CITY OF AZTEC PUBLIC WORKS DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST A SHUT-OFF DATE. WATER SHUT OFF MAY BE DONE AT NIGHT OR ON WEEKENDS TO ACCOMMODATE WATER CUSTOMERS.	EVC EW EX, EXIST FF FG FH FL FM FOC FP G GM GV HORIZ INT INV INV EL LF LP LT MH NG OC PB PC PCC PG PGL PI PL PRC PT PUE PVC PVM R, RAD RCD REF RT R/W, ROW S	END VERTICAL CURVE EACH WAY EXISTING FINISH FLOOR FINISH GRADE FIRE HYDRANT FLOW LINE FORCE MAIN FACE OF CURB FINISHED PAD GAS GAS METER GATE VALVE HORIZONTAL INTERSECTION INVERT INVERT ELEVATION LINEAR FEET LIGHT POLE LEFT MANHOLE NATURAL GROUND ON CENTER PULL BOX POINT OF CURVATURE POINT OF COMPOUND CURVATURE PAGE PROFILE GRADE LINE PER TYPICAL SECTION POINT OF INTERSECTION PROPERTY LINE POINT OF REVERSE CURVATURE POINT OF TANGENCY PUBLIC UTILITY EASEMENT POLYVINYL CHLORIDE PIPE PAVEMENT RADIUS REINFORCED CONCRETE PIPE ROOF DRAIN REFERENCE RIGHT RIGHT-OF-WAY SLOPE SANITARY SEWER LINE
2. WATER LINES SHALL BE CONSTRUCTED WITH A MINIMUM OF 4.0 FT. COVER MEASURED FROM FINISH GRADE TO THE TOP OF PIPE, UNLESS OTHERWISE SPECIFIED ON PLANS.		
3. FOR PRESSURE WATER CONNECTIONS TO EXISTING LINES, THE CONTRACTOR SHALL NOTIFY THE CITY OF AZTEC PUBLIC WORKS DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THE CONNECTION.		
4. CONCRETE THRUST BLOCKS SHALL BE USED ON ALL 90 DEGREE BENDS, TEES TO HYDRANTS, BEHIND HYDRANTS AND UNDER VALVES. ALL FITTINGS AND CAPS SHALL USE MEGA LUG RESTRAINTS. NO EXTRA PAYMENT WILL BE MADE FOR THESE FEATURES.		
5. COMPRESSION JOINTS MAY BE USED ON COPPER SERVICE LINES EXCEPT FLARED JOINTS SHALL BE USED WHEN CONNECTING TO PLASTIC LINES.		
6. THE 24" DEPTH OF SERVICE LINE BELOW FINISH SURFACE ELEVATION OF METER BOXES IS CRITICAL. METERS WILL NOT BE INSTALLED WHEN THIS DIMENSION VARIES.		
7. VALVE BOXES SHALL BE BROUGHT TO SURFACE ELEVATION UPON COMPLETION OF SURFACE COURSE OF PAVEMENT. OCTAGONAL CONCRETE COLLARS SHALL BE CONSTRUCTED TO SURFACE ELEVATIONS.		
8. FLUSHING OF WATER LINES SHALL BE METERED. ORDER OF PREFERENCE FOR DISPOSAL IS (1) ON AVAILABLE LAND SURFACE OR (2) IN STORM SEWERS. DISPOSAL METHOD SHALL BE DISCUSSED WITH THE CITY INSPECTOR.		
9. FLUSHING, DISINFECTION AND TESTING OF WATER LINES SHALL BE COORDINATED WITH THE CITY OF AZTEC UTILITY INSPECTOR.		
10. WATER LINES SHALL BE DR-18.		
11. WATER LINES SHALL HAVE TRACER WIRE OR WATER EMD'S, 3 FT. BURY, AT 200 FT. INTERVALS.		
12. CURB CUT FOR WATER & SEWER LATERALS ON TOP OF CURB AND LIP OF GUTTER.		
13. MARK LINE DIRECTION AND SIZE ON ALL VALVE COLLARS.		

1. SEWER SERVICE LATERAL LOCATIONS ARE SHOWN GRAPHICALLY (I.E. TYPICALLY 10 LF ABOVE LOWER RESIDENTIAL LOT LINE) AND MAY BE ADJUSTED IN THE FIELD TO AVOID DRIVEWAYS WHENEVER FEASIBLE.
2. 30 DAYS FOLLOWING INSTALLATION AND BACKFILL OF SEWER LINES, A DEFLECTION TEST USING A HAND PULLED MANDEL SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR.
3. AIR TESTING OF SEWER LINES SHALL BE CONDUCTED IN THE PRESENCE OF INSPECTOR.
4. ALL SEWER LINES SHALL BE INSPECTED BY TV CAMERA PRIOR TO ACCEPTANCE BY THE CITY.
5. MANHOLES SHALL MEET APWA STANDARDS EXCEPT THERE SHALL BE NO LADDER RUNGS INSTALLED. MANHOLES AND INLETS ON STORM SEWER SYSTEMS TO REQUIRE STEPS.
6. SEWER SERVICE LINES SHALL BE INSTALLED PER STANDARD S-5-A WITH 2X4 WOOD STAKE AT END OF LINE 10 FEET INSIDE OF PROPERTY.
7. SERVICE LINES ARE PERMITTED INTO MANHOLES.
8. SEWER LINES SHALL HAVE TRACER WIRE OR SEWER EMD'S, 3 FT. BURY, AT 200 FT. INTERVALS.
9. SEWER LINES SHALL BE SDR-35.

AP	ANALYSIS POINT
®	AT
BC	BEGIN CURVE
BCR	BEGIN CURB RETURN
BK	BOOK
BLDG	BUILDING
BM	BENCH MARK
BOP	BEGINNING OF PROJECT
BVC	BEGIN VERTICAL CURVE
BW	BASE OF WALL
CATV	CABLE TV LINE
CB	CATCH BASIN
CF	CURB FACE
CG	CURB AND GUTTER
CIP	CAST IRON PIPE
CL	CHAIN LINK
Ĉ	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COA	CITY OF AZTEC
CONC	CONCRETE
CY	CUBIC YARDS
DE, DUE	DRAINAGE UTILITY EASEMENT
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
Δ	DELTA
E	ELECTRIC
EA	EACH
EB	ELECTRIC BOX
EC	END CURVE
ECR	END CURB RETURN
EL, ELEV	ELEVATION
EMH	EXISTING MANHOLE
EOP	END OF PROJECT
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EW	EACH WAY
EX, EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
Ĥ	FLOW LINE
FM	FORCE MAIN
FOC	FACE OF CURB
FP	FINISHED PAD
G	GAS
GM	GAS METER
GV	GATE VALVE
HORIZ	HORIZONTAL
INT	INTERSECTION
INV	INVERT
INV EL	INVERT ELEVATION
LF	LINEAR FEET
LP	LIGHT POLE
LT	LEFT
MH	MANHOLE
NG	NATURAL GROUND
OC	ON CENTER
PB	PULL BOX
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PG	PAGE
PGL	PROFILE GRADE LINE PER TYPICAL SECTION
PI	POINT OF INTERSECTION
ℙ	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
R, RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REF	REFERENCE
RT	RIGHT
R/W, ROW	RIGHT-OF-WAY
S	SLOPE
SAS	SANITARY SEWER LINE
SD	STORM DRAIN
SF	SQUARE FEET
STA	STATION
STD	STANDARD
SW	SIDEWALK
SY	SQUARE YARDS
T	TANGENT
TA	TOP OF ASPHALT
TAC	TOP OF ASPHALT CURB
TBC	TOP BACK OF CURB
TC	TOP OF CONCRETE
TEL	TELEPHONE LINE, RISER OR BOX
TP	TOP OF PIPE
TRANS	TRANSVERSE
TW	TOP OF WALL
TYP	TYPICAL
UE	UNDERGROUND ELECTRICAL LINE
UT	UNDERGROUND TELEPHONE LINE
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W, WL	WATERLINE
WM	WATER METER
WSEL	WATER SURFACE ELEVATION
WS	WATER VALVE



DESCRIPTION		DATE	BY
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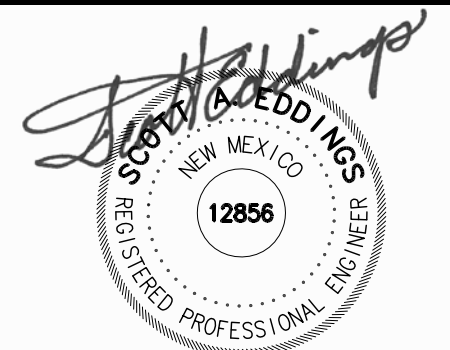
Designed By:

HUITT-ZOLLARS
Huitt-Zollars, Inc.
333 Rio Rancho Drive NE, Suite 201
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

Designed For:

CITY OF AZTEC

GENERAL NOTES

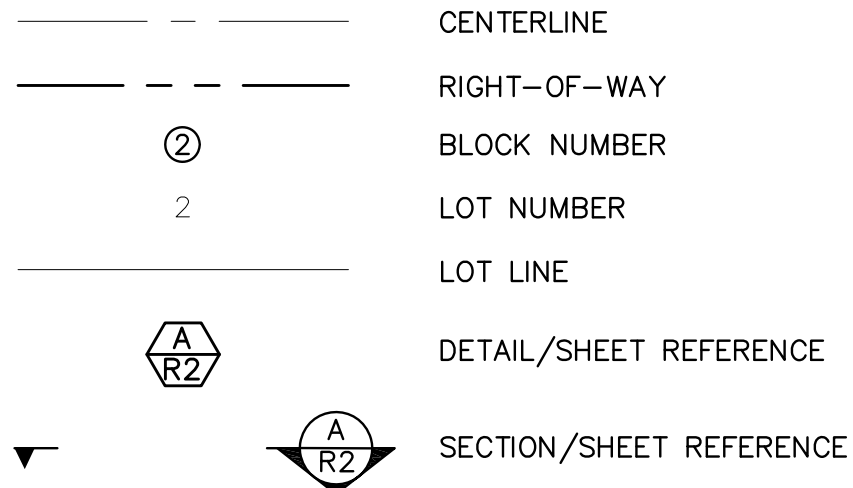


11/13/12

PROJECT NO. 17-0788-01	
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
DATE:	NOV. 13, 2012
DPW CHK:	-

SHEET: P2

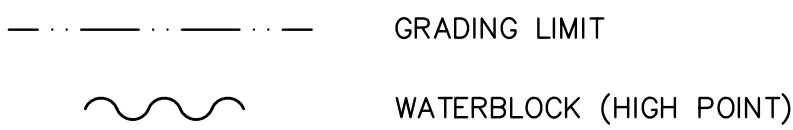
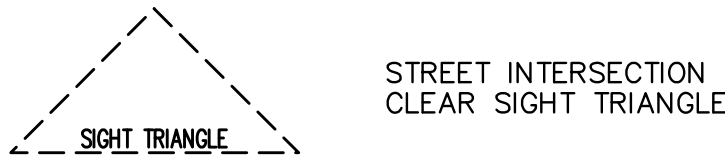
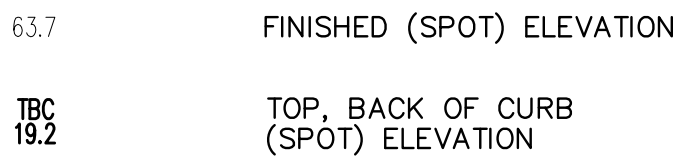
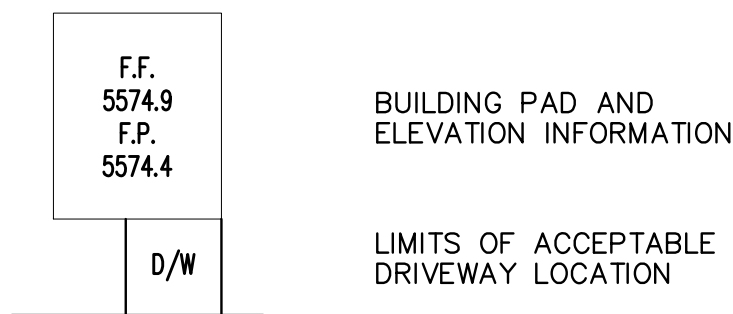
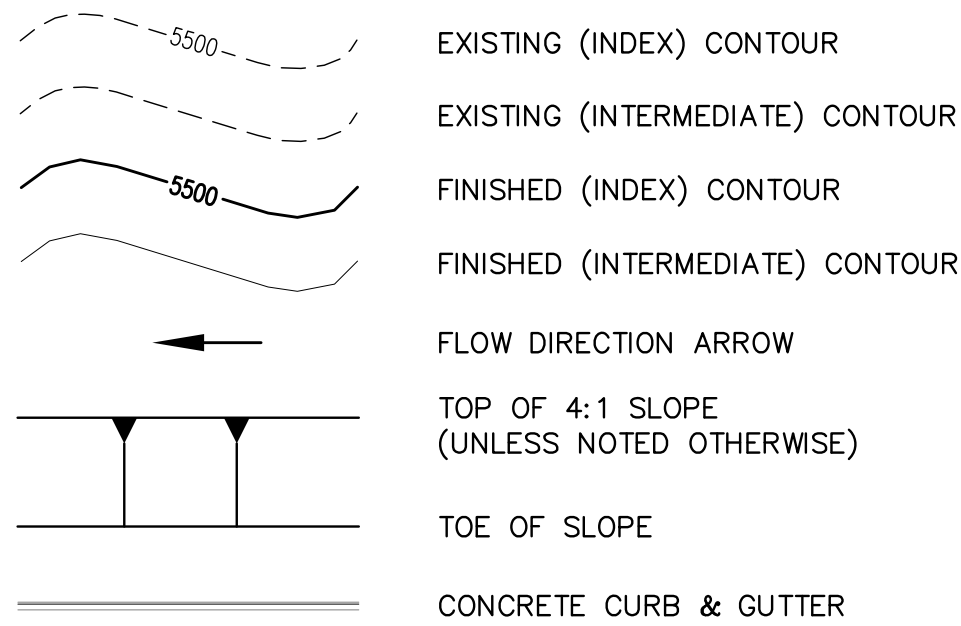
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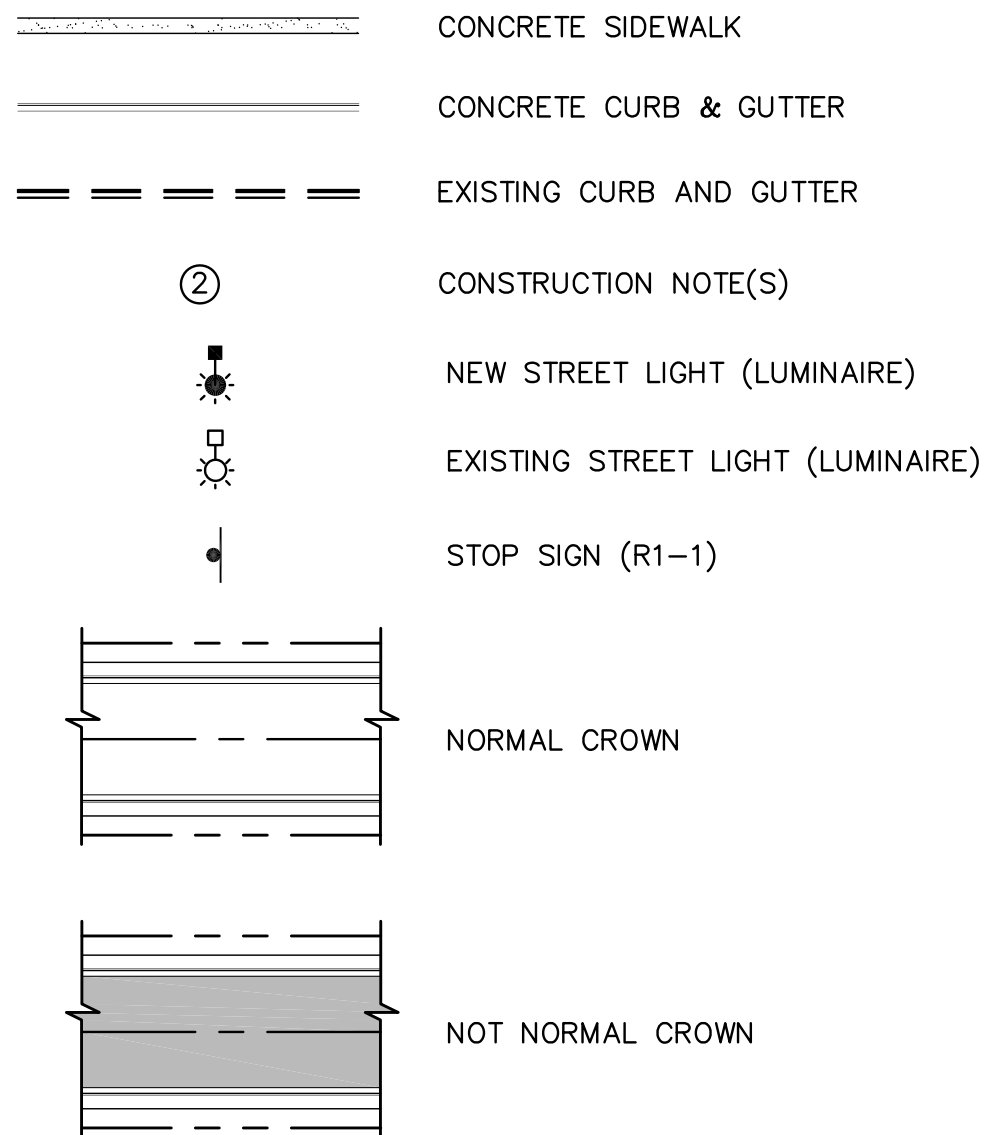
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SEE SHEET R3

MATCH LINE/SHEET REFERENCE

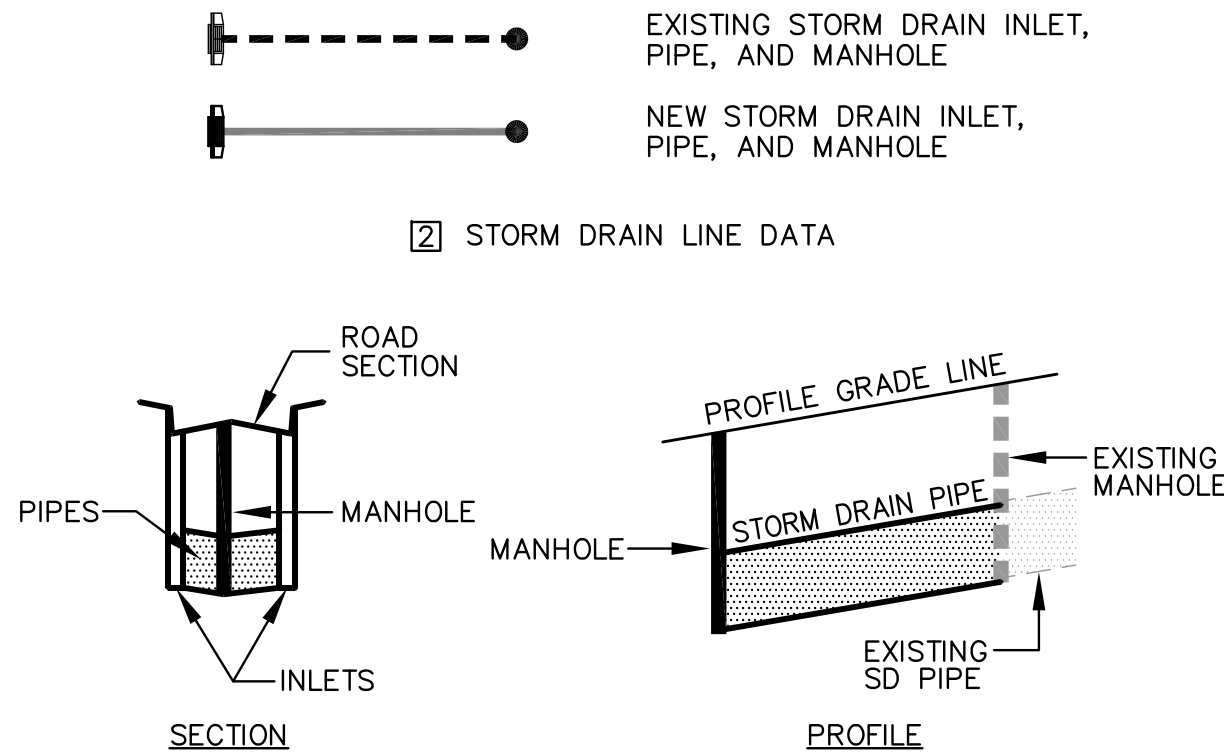
GRADING & DRAINAGE



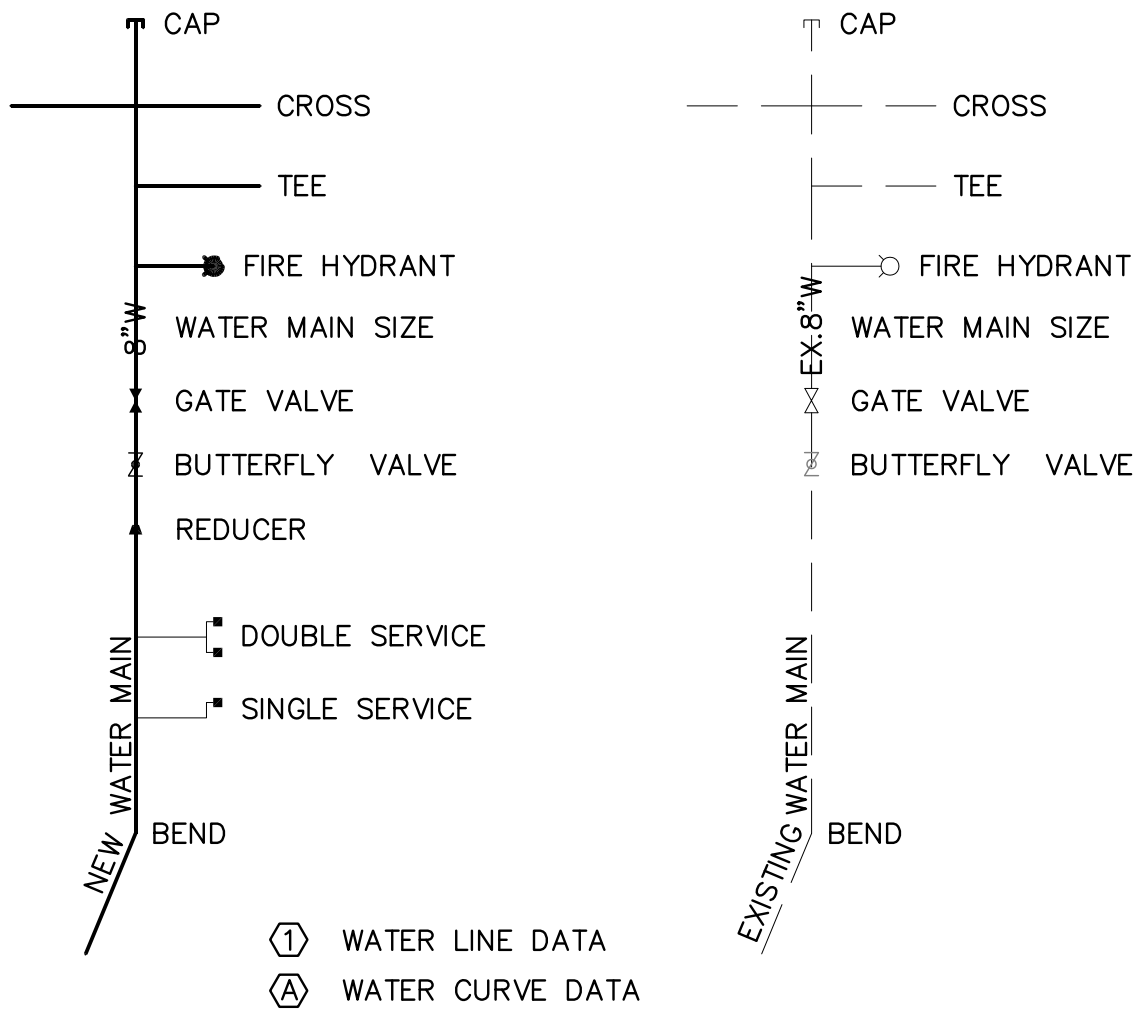
ROADS



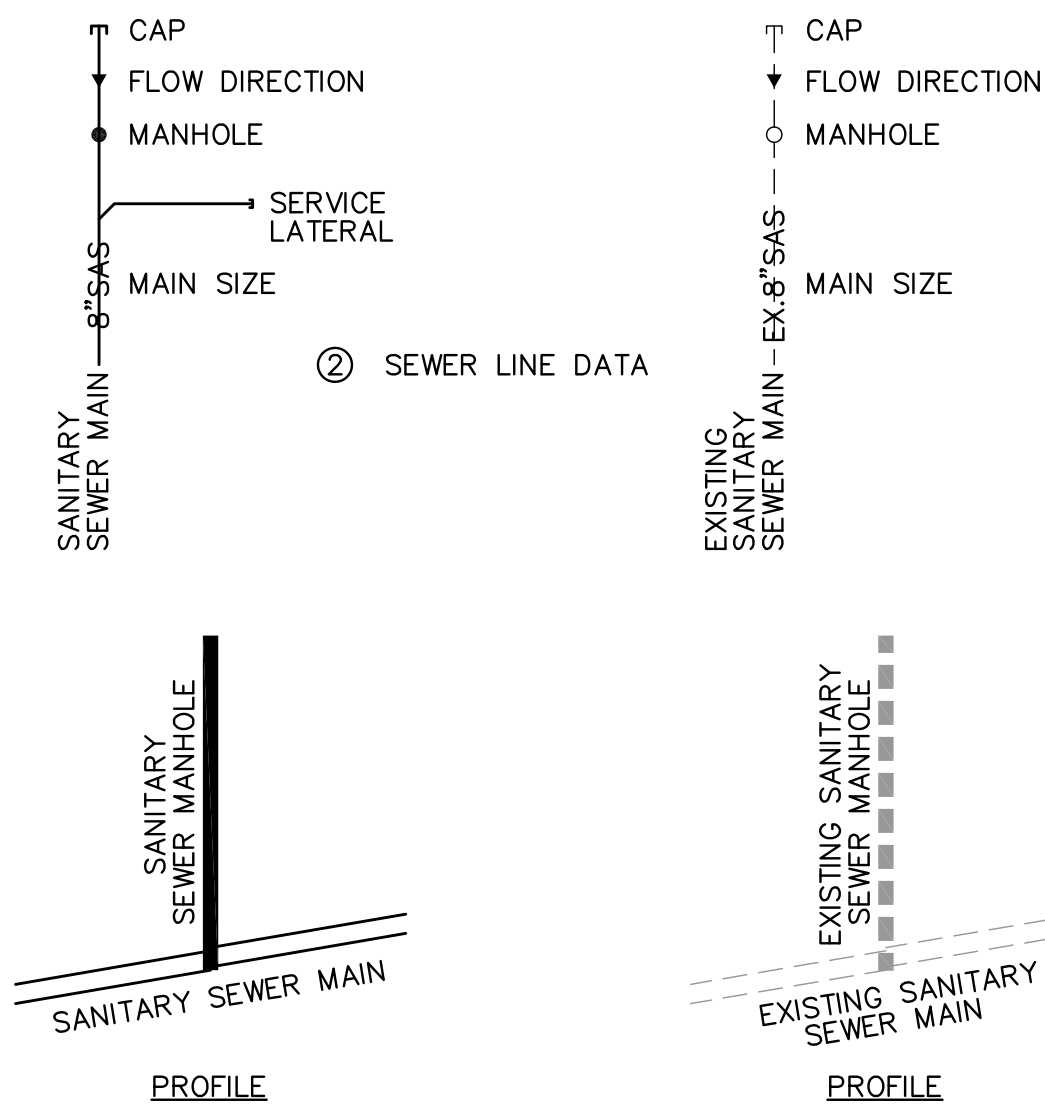
STORM DRAIN



WATER



SANITARY SEWER



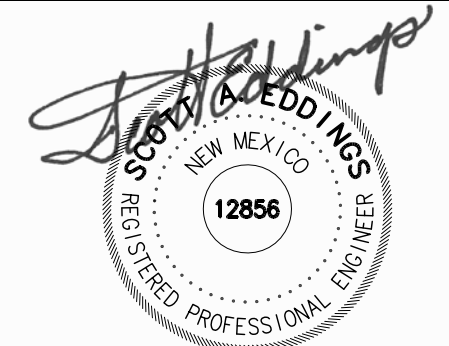
REVISIONS (OR CHANGE NOTICES)	
NO.	DESCRIPTION
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DATE	BY

Designed By:
HUITT-ZOLIARS
Huitt-Zoliars, Inc. a Rancho
533 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141
Fax (505) 892-3259

Designed For:
CITY OF AZTEC

LEGEND AND ABBREVIATIONS

SANITARY SEWER LINE
AZTEC, NEW MEXICO

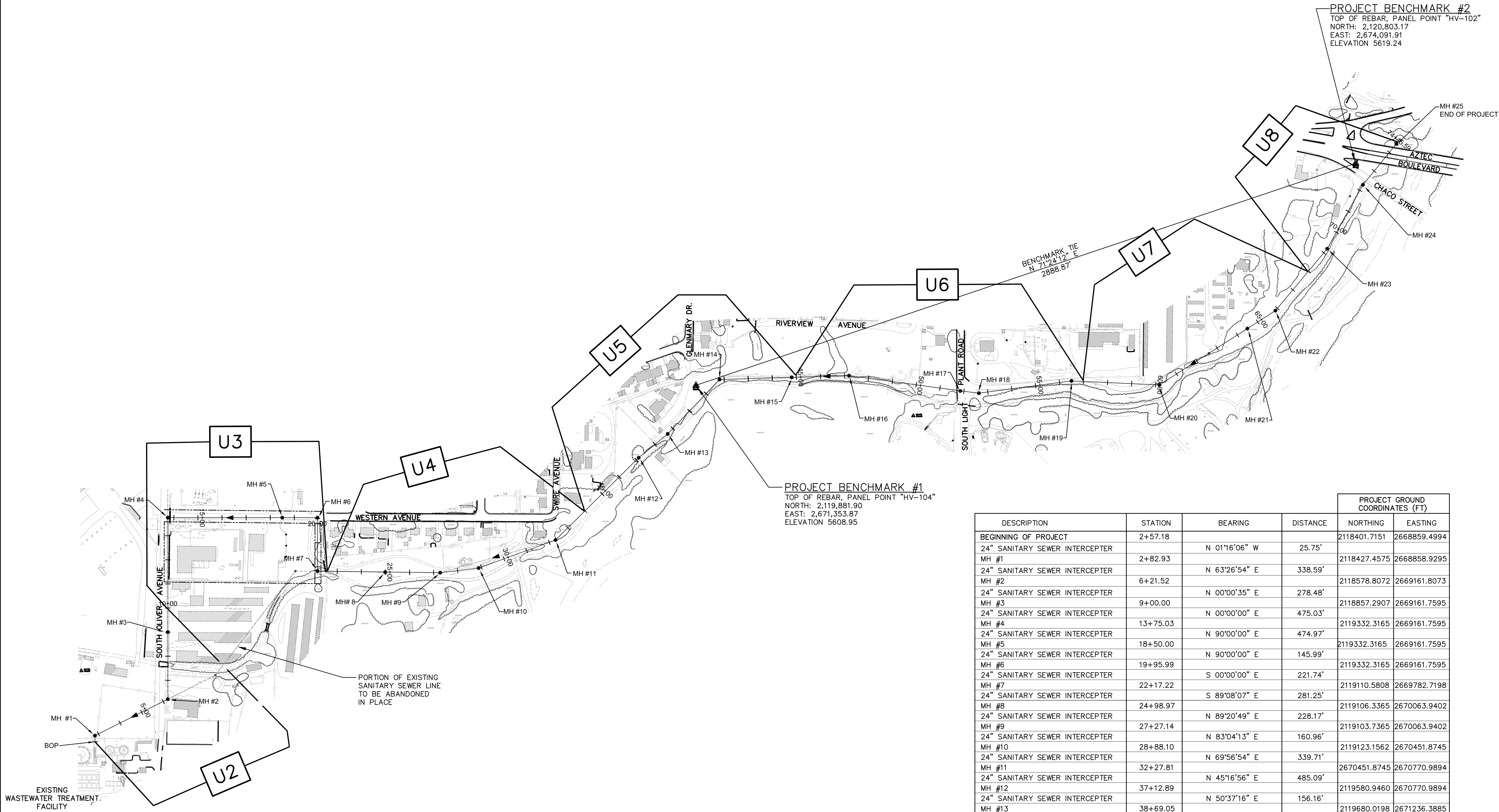


11/13/12

PROJECT NO.	17-0788-01
DESIGNED BY:	SAE
DRAWN BY:	LRT
CHECKED BY:	SAE
DATE:	NOV. 13, 2012
DPW CHK:	-

SHEET:
P3

Nov 13, 2012 9:03:06am - User: addings
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Xref: [G:\PROJ\17078801\DWG\PLOT_FILES\95%AZTEC_SAG_BASE-GEO.DWG]



PROJECT BENCHMARK #1
TOP OF REBAR, PANEL POINT "HV-104"
NORTH: 2,119,881.90
EAST: 2,671,353.87
ELEVATION 5608.95

PROJECT BENCHMARK #2
TOP OF REBAR, PANEL POINT "HV-102"
NORTH: 2,120,803.17
EAST: 2,674,091.91
ELEVATION 5619.24

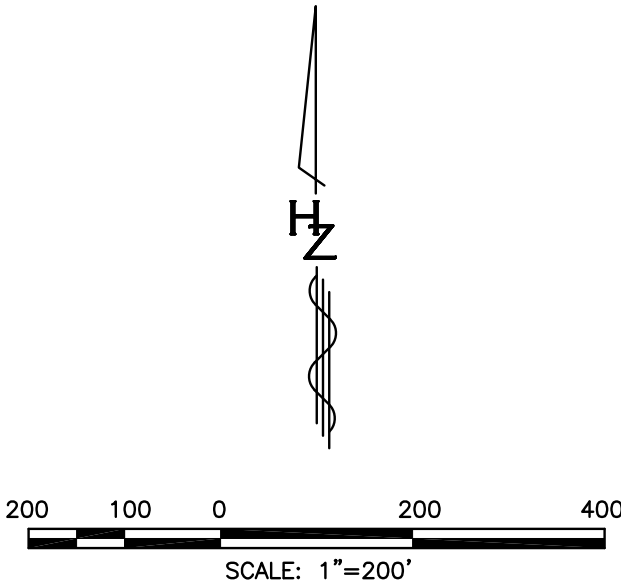
DESCRIPTION	STATION	BEARING	DISTANCE	PROJECT GROUND COORDINATES (FT)	
				NORTHING	EASTING
BEGINNING OF PROJECT	2+57.18			2118401.7151	2668859.4994
24" SANITARY SEWER INTERCEPTOR		N 01°16'06" W	25.75'		
MH #1	2+82.93			2118427.4575	2668858.9295
24" SANITARY SEWER INTERCEPTOR		N 63°26'54" E	338.59'		
MH #2	6+21.52			2118578.8072	2669161.8073
24" SANITARY SEWER INTERCEPTOR		N 00°00'35" E	278.48'		
MH #3	9+00.00			2118857.2907	2669161.7595
24" SANITARY SEWER INTERCEPTOR		N 00°00'00" E	475.03'		
MH #4	13+75.03			2119332.3165	2669161.7595
24" SANITARY SEWER INTERCEPTOR		N 90°00'00" E	474.97'		
MH #5	18+50.00			2119332.3165	2669161.7595
24" SANITARY SEWER INTERCEPTOR		N 90°00'00" E	145.99'		
MH #6	19+95.99			2119332.3165	2669161.7595
24" SANITARY SEWER INTERCEPTOR		S 00°00'00" E	221.74'		
MH #7	22+17.22			2119110.5808	2669782.7198
24" SANITARY SEWER INTERCEPTOR		S 89°08'07" E	281.25'		
MH #8	24+98.97			2119106.3365	2670063.9402
24" SANITARY SEWER INTERCEPTOR		N 89°20'49" E	228.17'		
MH #9	27+27.14			2119103.7365	2670063.9402
24" SANITARY SEWER INTERCEPTOR		N 83°04'13" E	160.96'		
MH #10	28+88.10			2119123.1562	2670451.8745
24" SANITARY SEWER INTERCEPTOR		N 69°56'54" E	339.71'		
MH #11	32+27.81			2670451.8745	2670770.9894
24" SANITARY SEWER INTERCEPTOR		N 45°16'56" E	485.09'		
MH #12	37+12.89			2119580.9460	2670770.9894
24" SANITARY SEWER INTERCEPTOR		N 50°37'16" E	156.16'		
MH #13	38+69.05			2119680.0198	2671236.3885
24" SANITARY SEWER INTERCEPTOR		N 43°37'13" E	311.88'		
MH #14	41+80.93			2119905.7992	2671451.5481
24" SANITARY SEWER INTERCEPTOR		N 88°18'05" E	299.70'		
MH #15	44+80.63			2119914.6822	2671751.1152
24" SANITARY SEWER INTERCEPTOR		N 88°18'05" E	238.27'		
MH #16	47+18.90			2119921.7445	2671989.2785
24" SANITARY SEWER INTERCEPTOR		S 82°14'39" E	467.30'		
MH #17	51+86.20			2119858.6816	2672452.3016
24" SANITARY SEWER INTERCEPTOR		S 82°48'48" E	76.18'		
MH #18	52+62.38			2119849.1510	2672527.8842
24" SANITARY SEWER INTERCEPTOR		N 82°28'30" E	387.92'		
MH #19	56+50.30			2119899.9524	2672912.4631
24" SANITARY SEWER INTERCEPTOR		S 87°23'11" E	364.75'		
MH #20	60+15.05			2119883.3189	2673276.8328
24" SANITARY SEWER INTERCEPTOR		N 57°23'30" E	433.93'		
MH #21	64+48.97			2120117.1590	2673642.3615
24" SANITARY SEWER INTERCEPTOR		N 57°20'46" E	138.48'		
MH #22	65+87.45			2120191.8767	2673758.9522
24" SANITARY SEWER INTERCEPTOR		N 39°54'37" E	334.60'		
MH #23	69+22.05			2120448.5305	2673973.6265
24" SANITARY SEWER INTERCEPTOR		N 29°12'13" E	304.18'		
MH #24	72+26.23			2120714.0481	2674122.0409
24" SANITARY SEWER INTERCEPTOR		N 39°11'34" E	219.35'		
MH #25 - END OF PROJECT	74+45.59			2120884.0520	2674260.6568

NOTES:

PLANS DEPICT THE REPLACEMENT OF THE EXISTING SANITARY SEWER MAIN.

A 60' WIDE TEMPORARY CONSTRUCTION EASEMENT SHALL BE OBTAINED BY THE CITY OF AZTEC (30' EACH SIDE OF THE SAS PIPE AS SHOWN HEREIN).

A 30' WIDE PERMANENT PUBLIC UTILITY EASEMENT SHALL BE OBTAINED BY THE CITY OF AZTEC (15' EACH SIDE OF THE SAS PIPE AS SHOWN HEREIN).



REVISIONS (OR CHANGE NOTICES)	
NO.	DESCRIPTION
7	
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NO.	DATE
BY	

Designed By:

HUITT-ZOLIARS

Huitt-Zoliars, Inc. 333 Rio Rancho Drive NE Suite 101 Rio Rancho, New Mexico 87124 Phone (505) 892-5141 Fax (505) 892-3259

Designed For:

CITY OF AZTEC

UTILITY TITLE SHEET

SANITARY SEWER LINE
AZTEC, NEW MEXICO

11/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

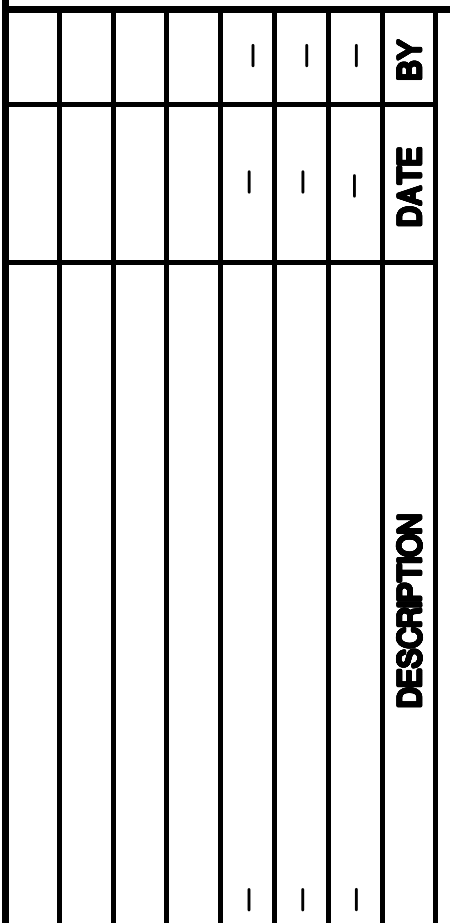
DRAWN BY: LRT

CHECKED BY: SAE

DATE: NOV. 13, 2012

DPW CHK: -

SHEET: U1



Designed By:

HUITT-ZOLLARS

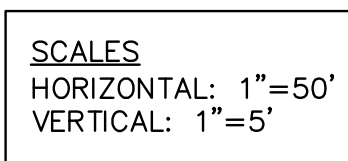
Huitt-Zollars, Inc.
3300 Rio Rancho Drive NE, Suite 401
Albuquerque, New Mexico 87124, 01
Phone (505) 892-5141 Fax (505) 892-3259

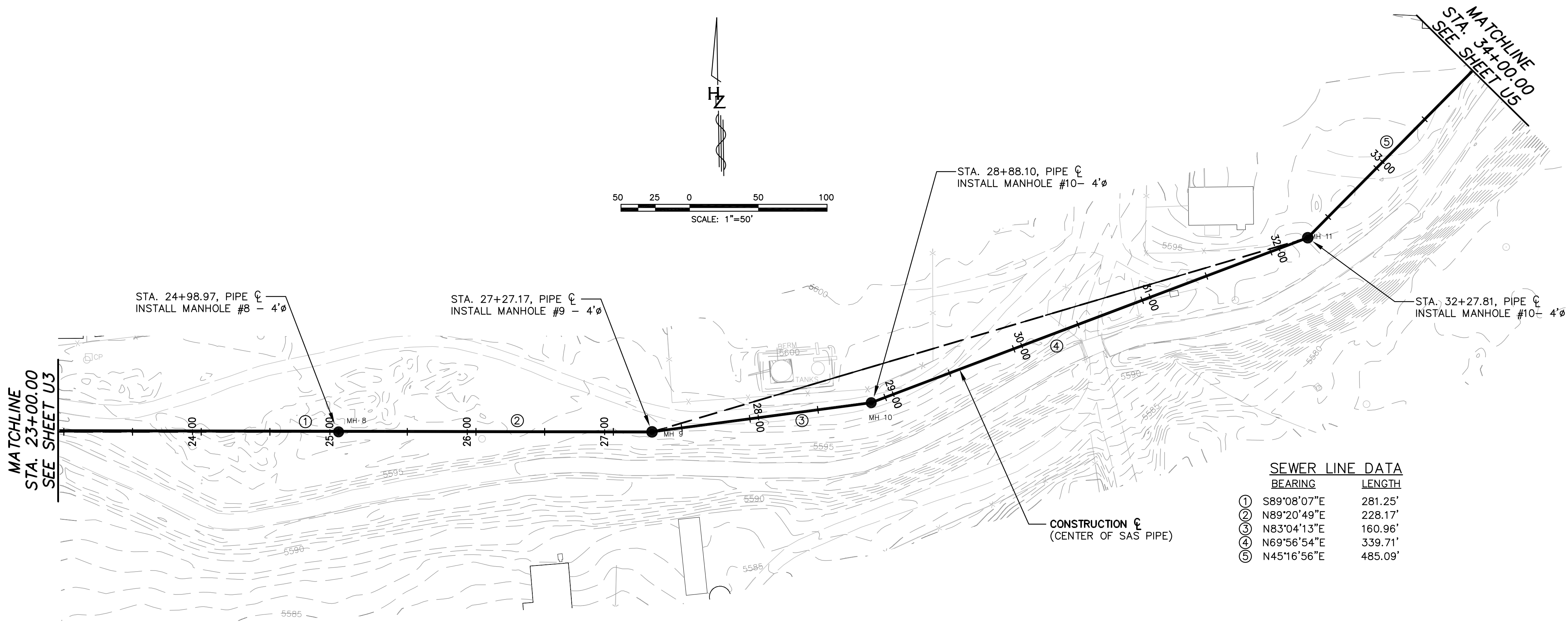
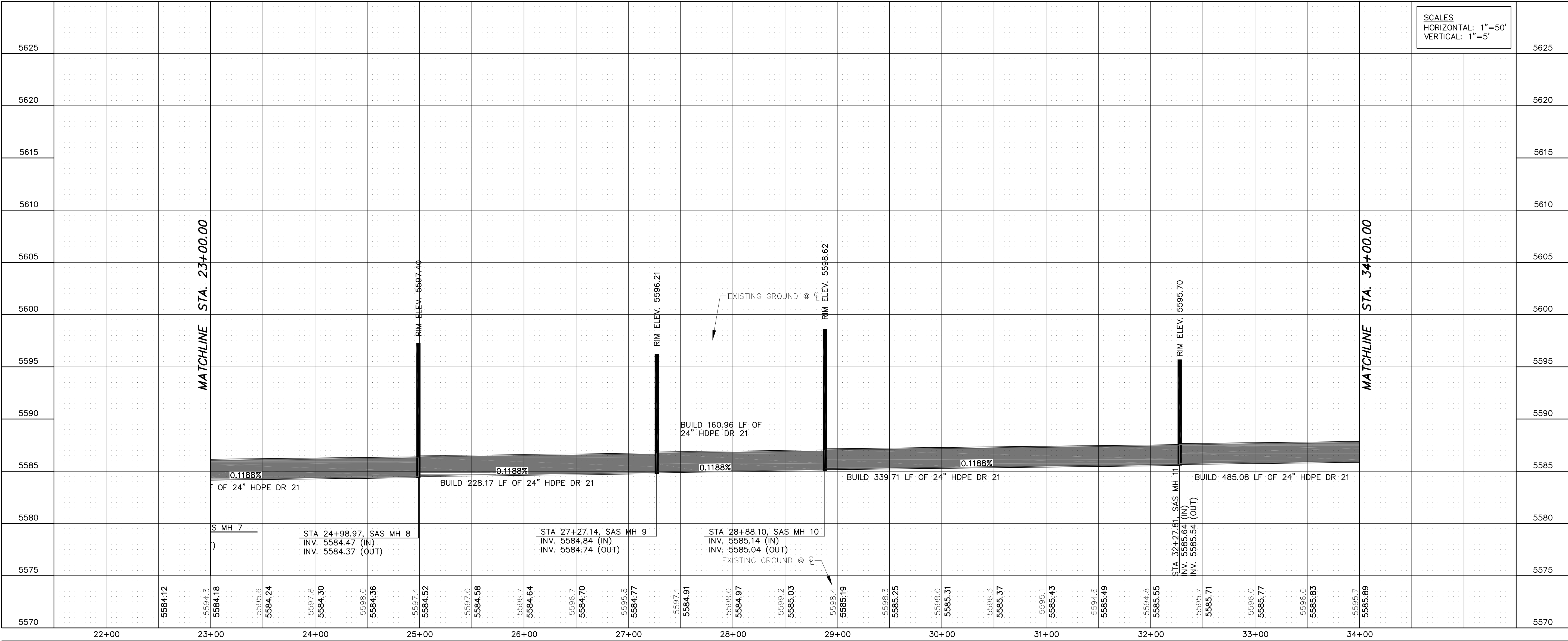
Designed For:

CITY OF AZTEC

11/13/12

SHEET:
U2





SANITARY SEWER LINE



REVISIONS (OR CHANGE NOTICES)	
NO.	DESCRIPTION
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Designed By:

HUITT-ZOLIARS
Huitt-Zoliars, Inc.
533 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141
Fax (505) 892-3259

Designed For:

CITY OF AZTEC

UTILITY PLAN & PROFILE SHEET

SANITARY SEWER LINE
AZTEC, NEW MEXICO

11/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

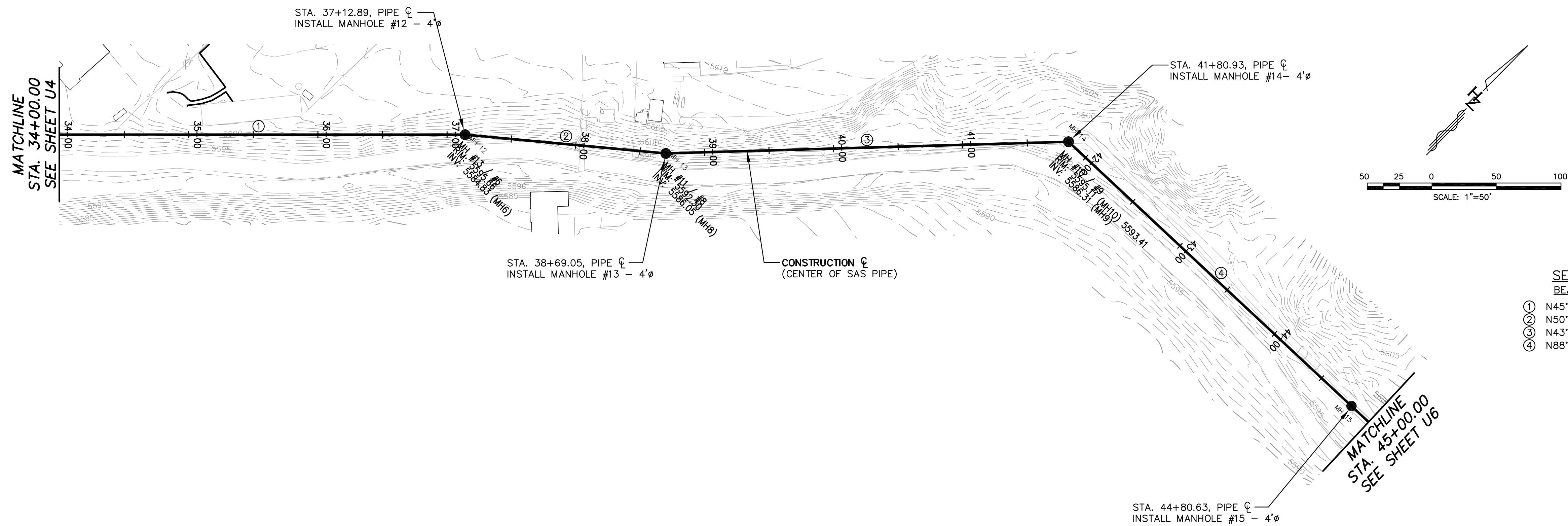
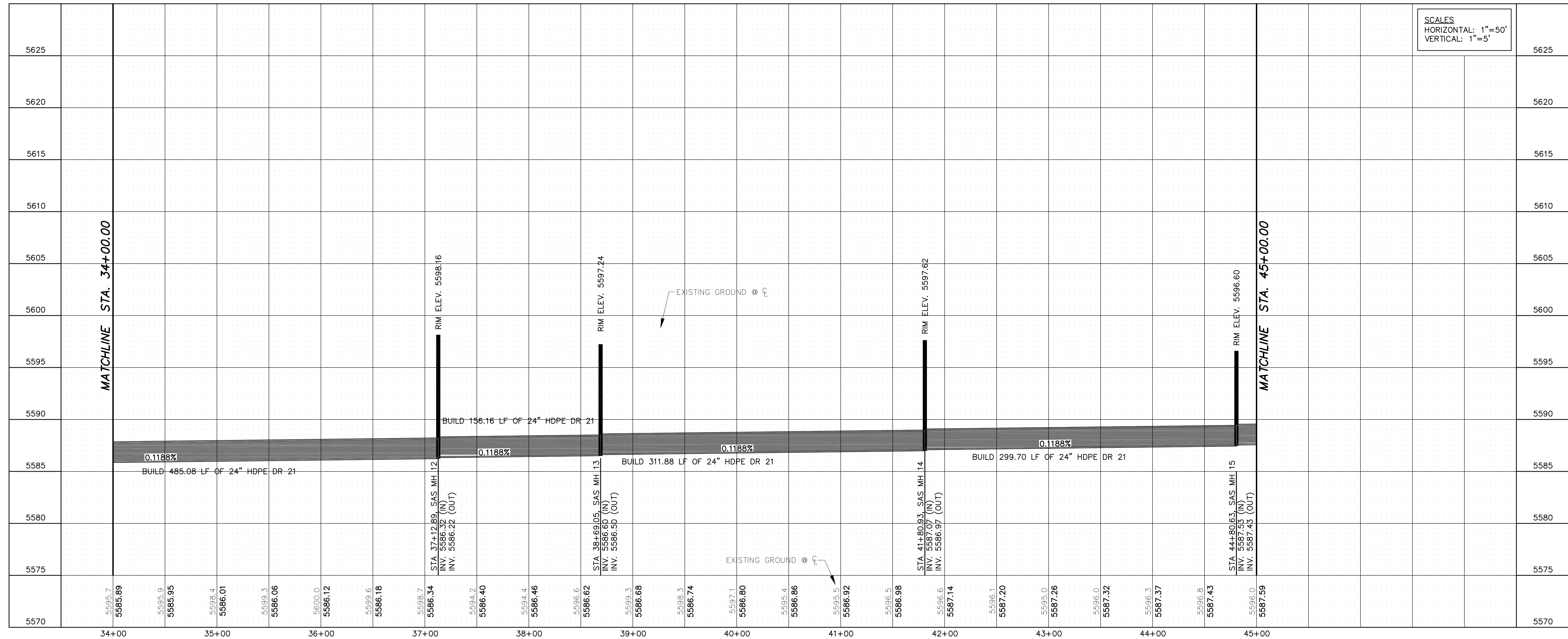
DRAWN BY: LRT

CHECKED BY: SAE

DATE: NOV. 13, 2012

DPW CHK: -

SHEET: U4



SEWER LINE DATA		
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①	N45°16'56"E	485.09'
②	N50°37'16"E	156.16'
③	N43°37'13"E	311.88'
④	N88°18'05"E	299.70'

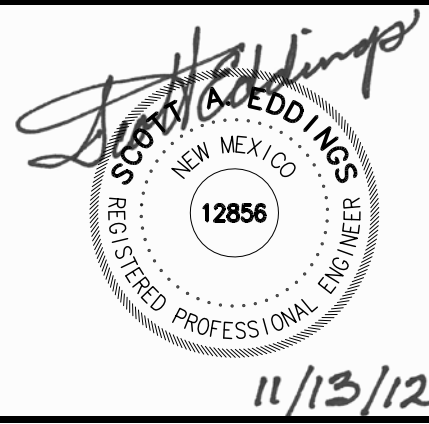
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CITY OF AZTEC

UTILITY PLAN & PROFILE SHEET

**SANITARY SEWER LINE
AZTEC, NEW MEXICO**



11/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

DRAWN BY: LRT

CHECKED BY: SAE

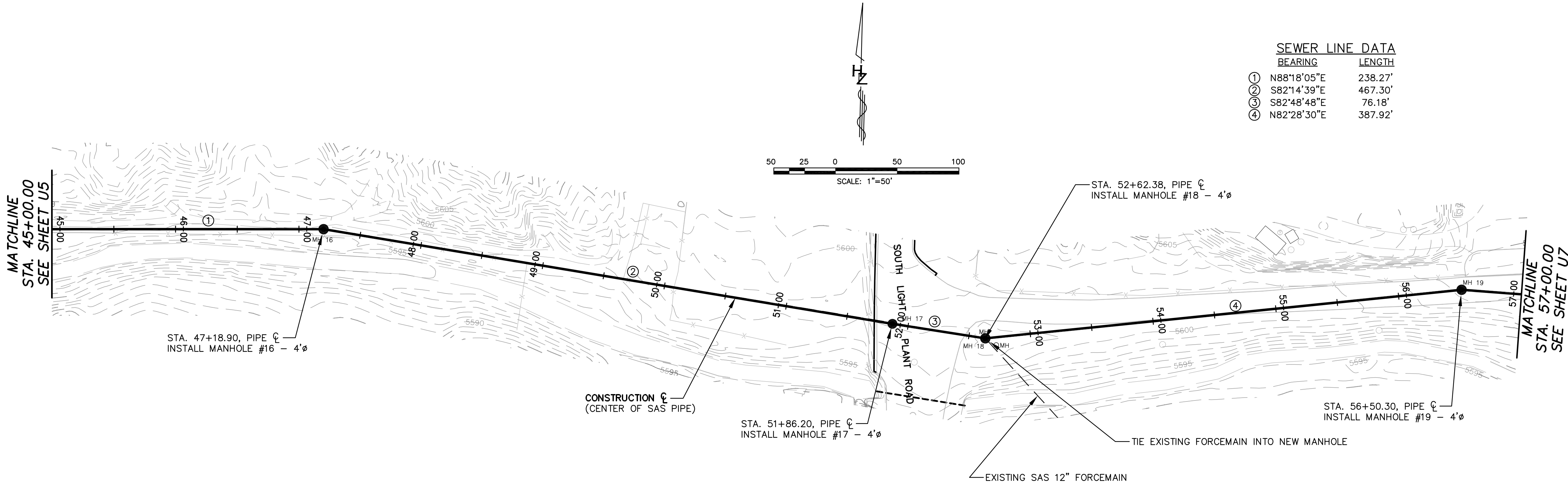
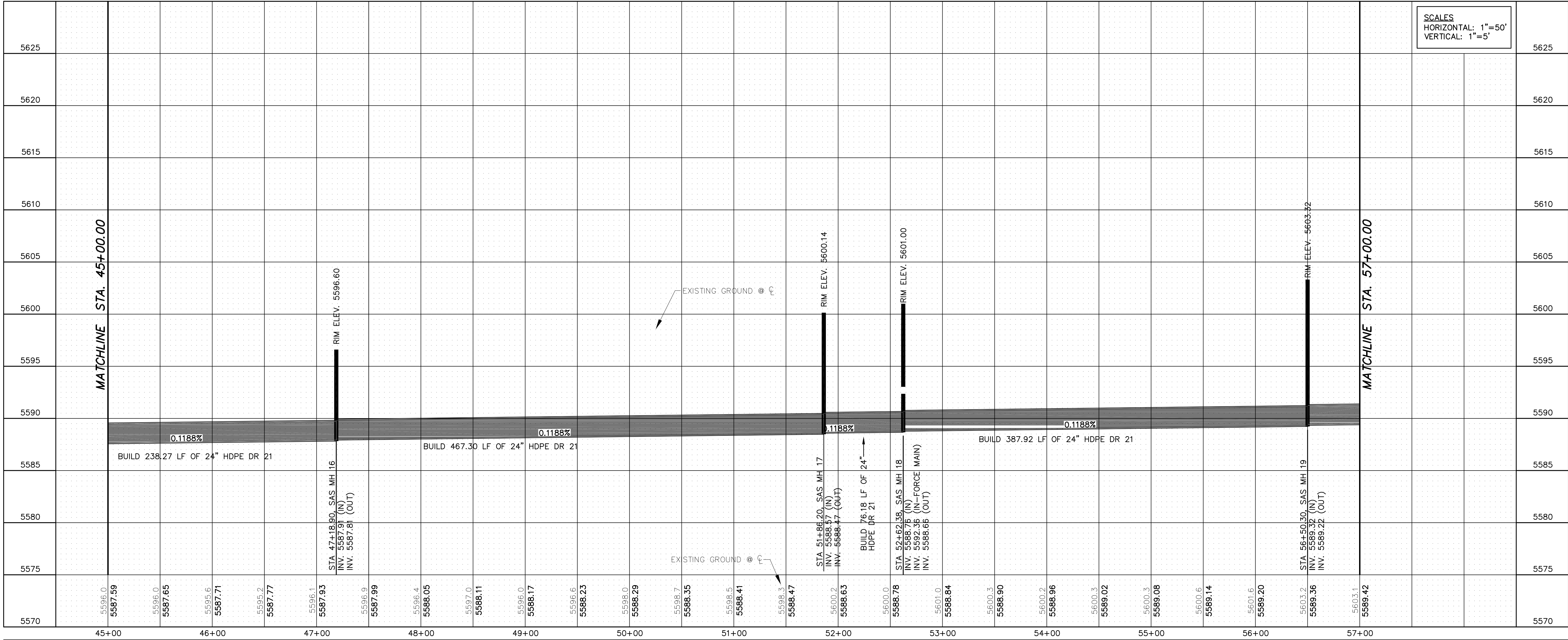
DATE: NOV. 13, 2012

DPW CHK: -

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SANITARY SEWER LINE



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Designed By:

HUITT-ZOLIARS

Huitt-Zoliars, Inc. - Rio Rancho
533 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

Designed For:

CITY OF AZTEC

UTILITY PLAN & PROFILE SHEET

SANITARY SEWER LINE

AZTEC, NEW MEXICO

Steve Eddings

STEVE EDDINGS

REGISTERED PROFESSIONAL ENGINEER

12856

11/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

DRAWN BY: LRT

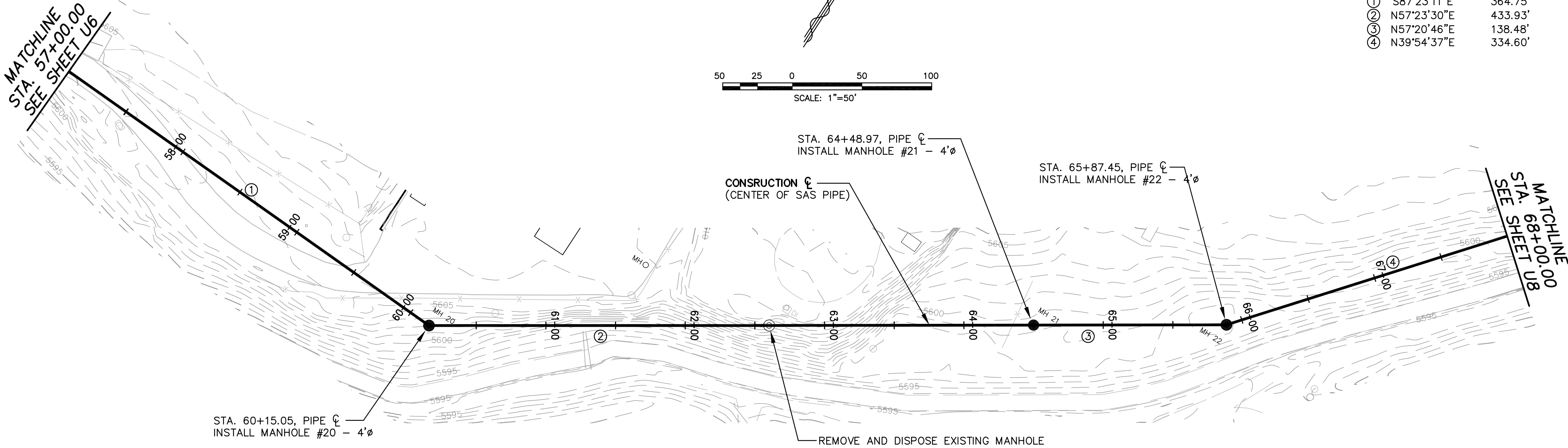
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DATE: NOV. 13, 2012

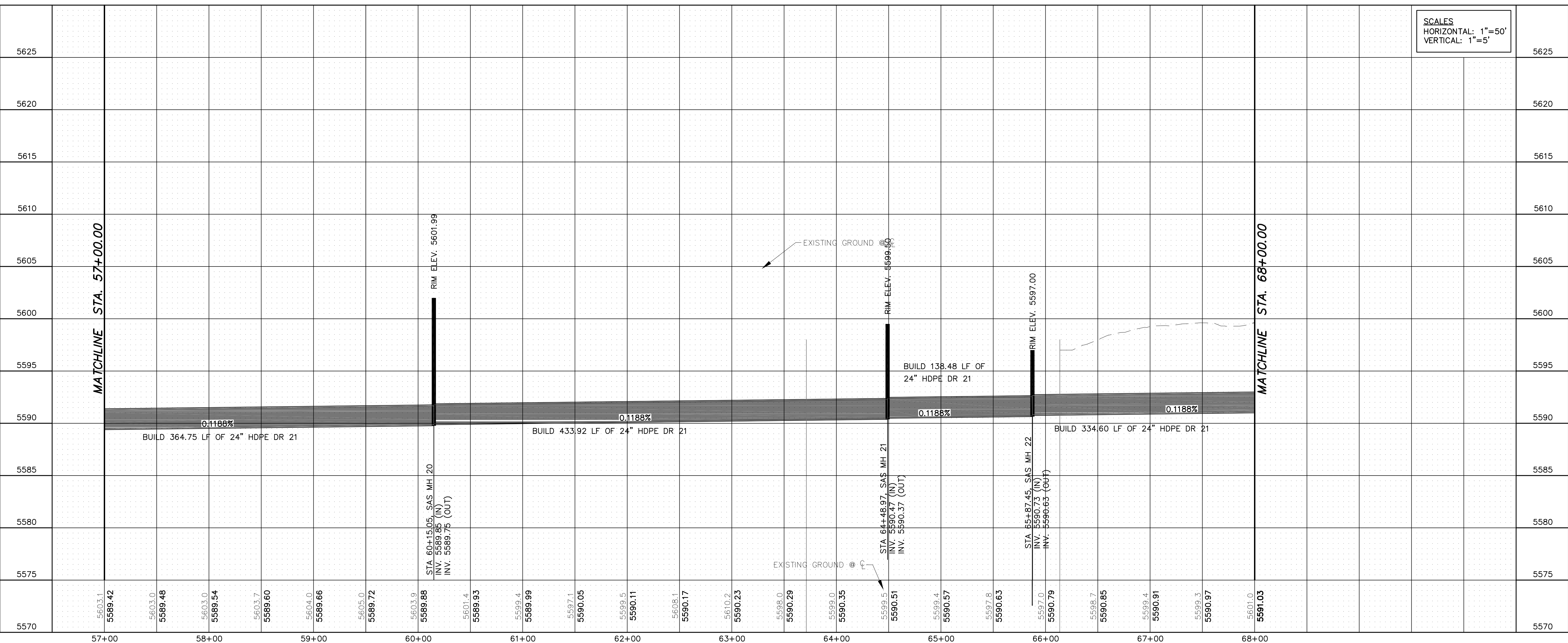
DPW CHK: -

SHEET:

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SANITARY SEWER LINE



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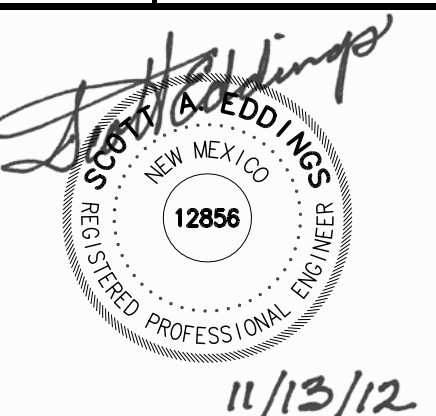
HUITT-ZOLLARS
Huitt-Zollars, Inc.
333 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

Designed For:

CITY OF AZTEC

UTILITY PLAN & PROFILE SHEET

**SANITARY SEWER LINE
AZTEC, NEW MEXICO**



PROJECT NO. 17-0788-01

DESIGNED BY: SAE

RAWN BY: MS

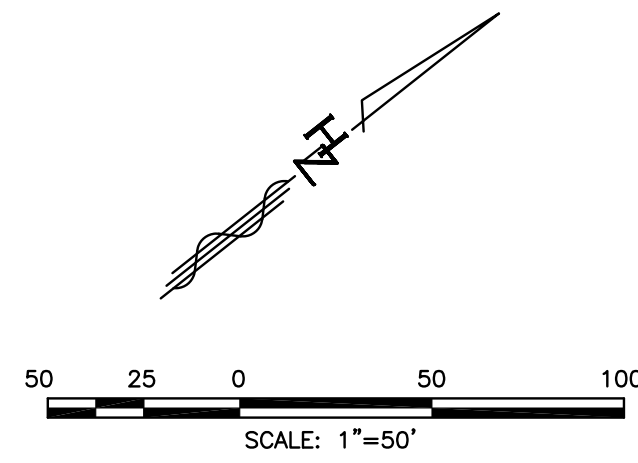
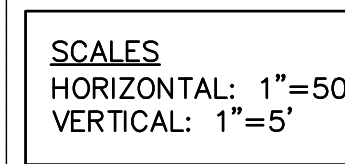
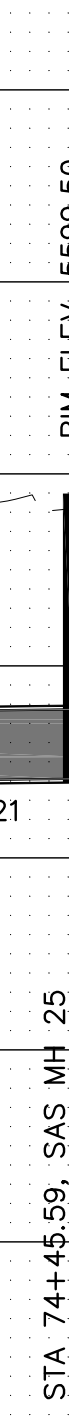
CHECKED BY: KRK

DATE: NOV. 13, 2012

PW CHK: -

SHEET:

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SEWER LINE DATA		
	BEARING	LENGTH
①	N39°54'37"E	334.60'
②	N29°12'13"E	304.18'
③	N39°11'34"E	219.35'

SANITARY SEWER LINE

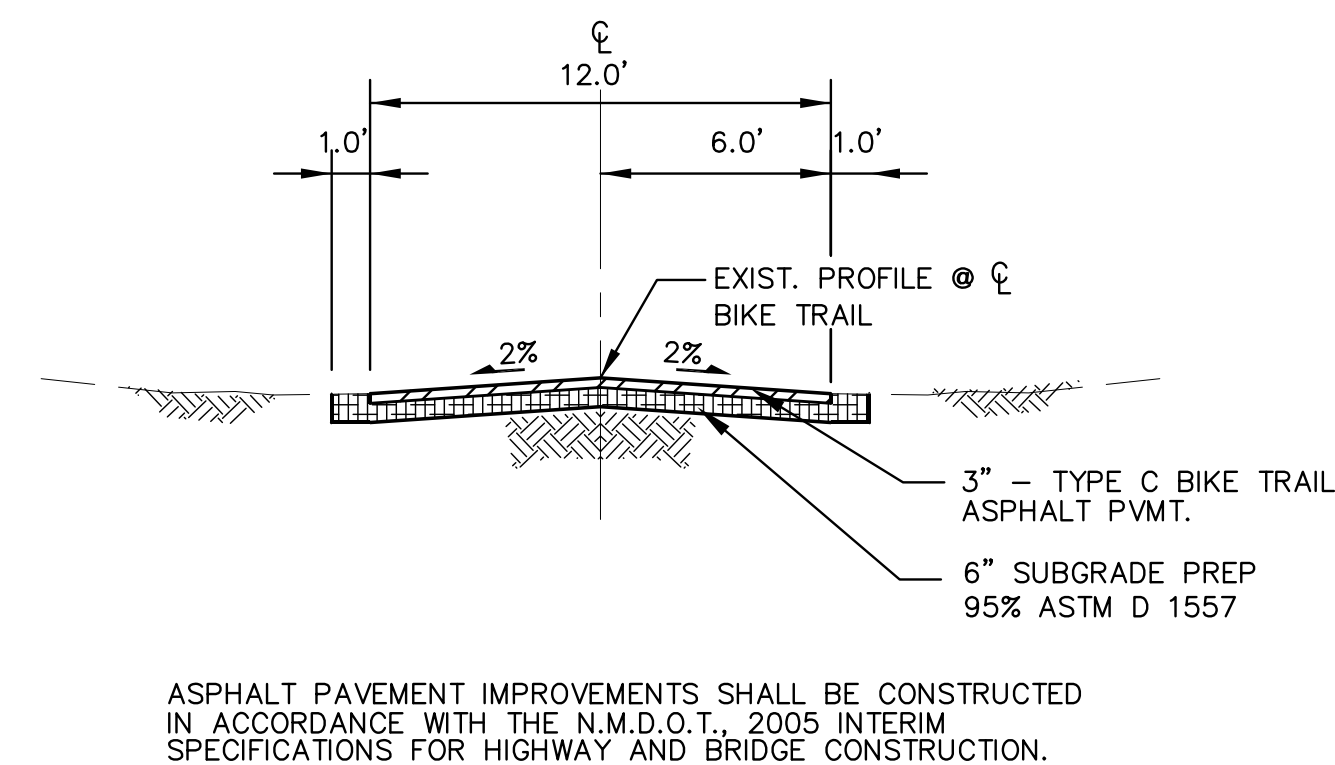
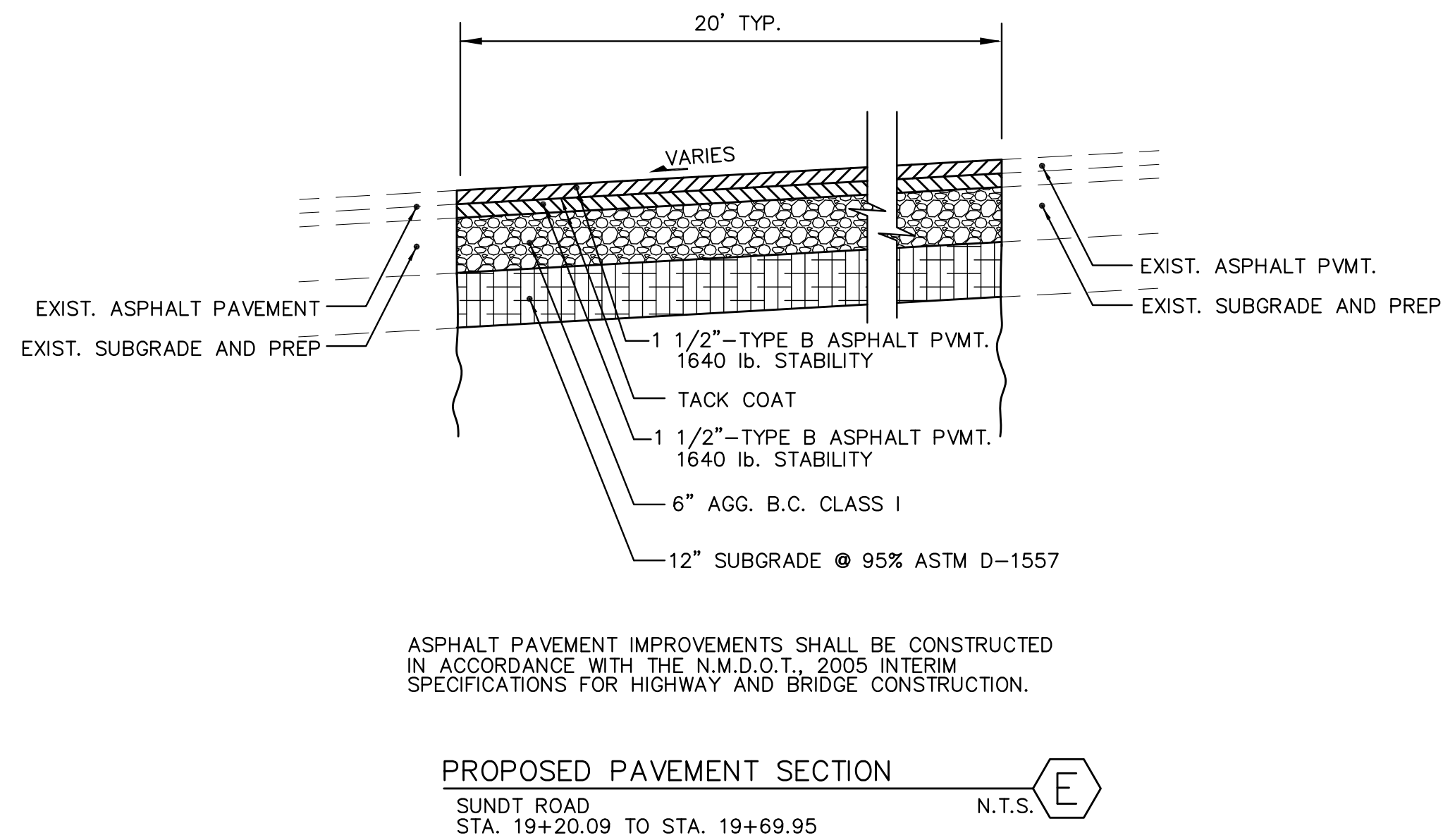
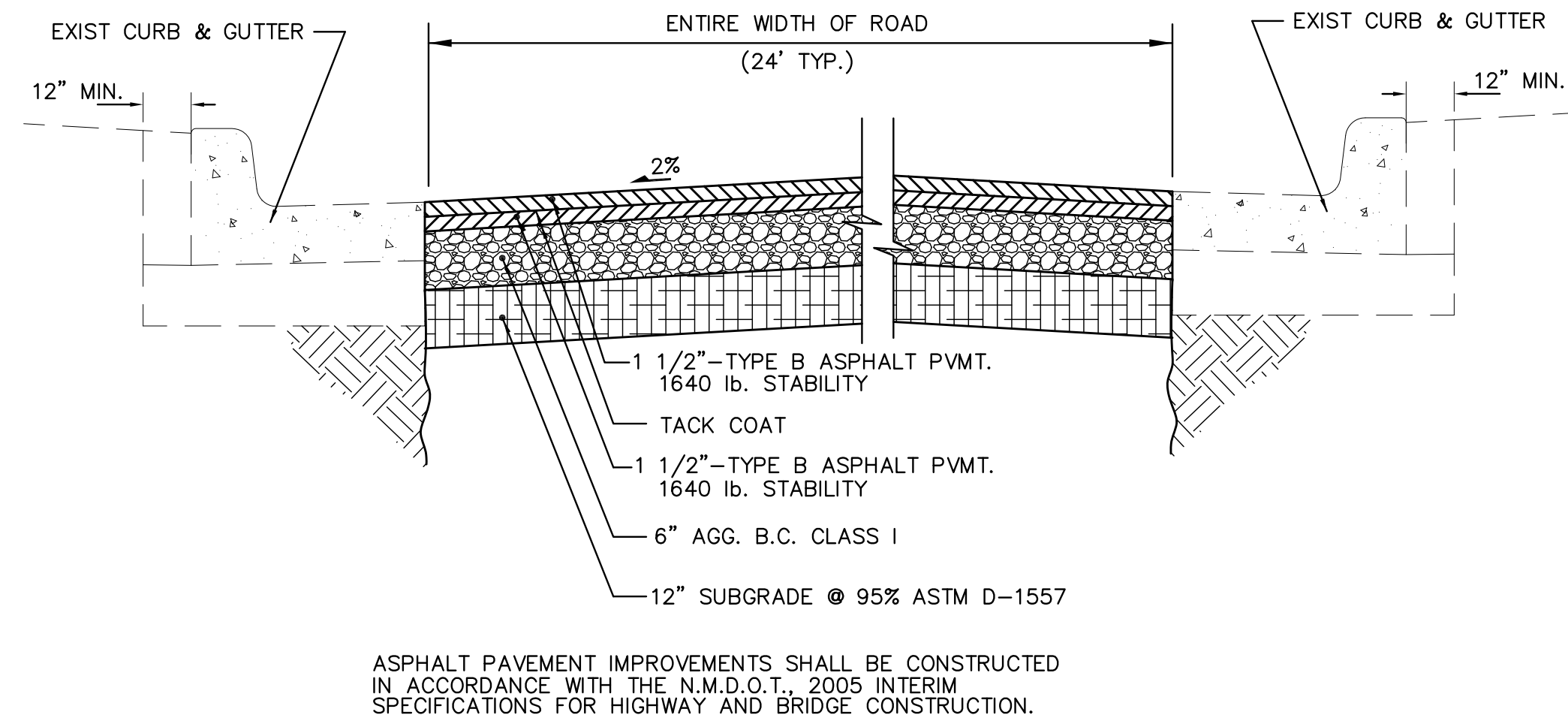
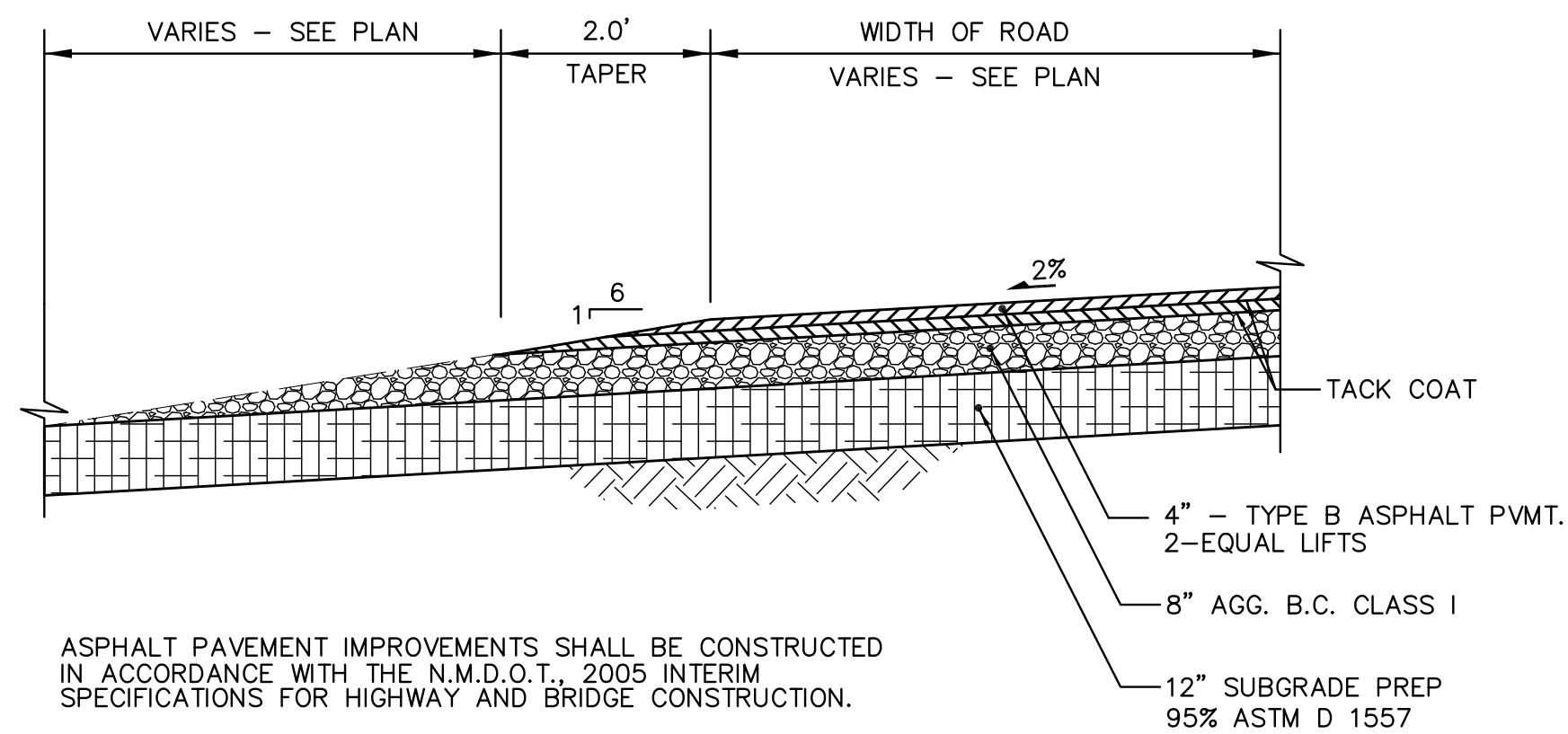
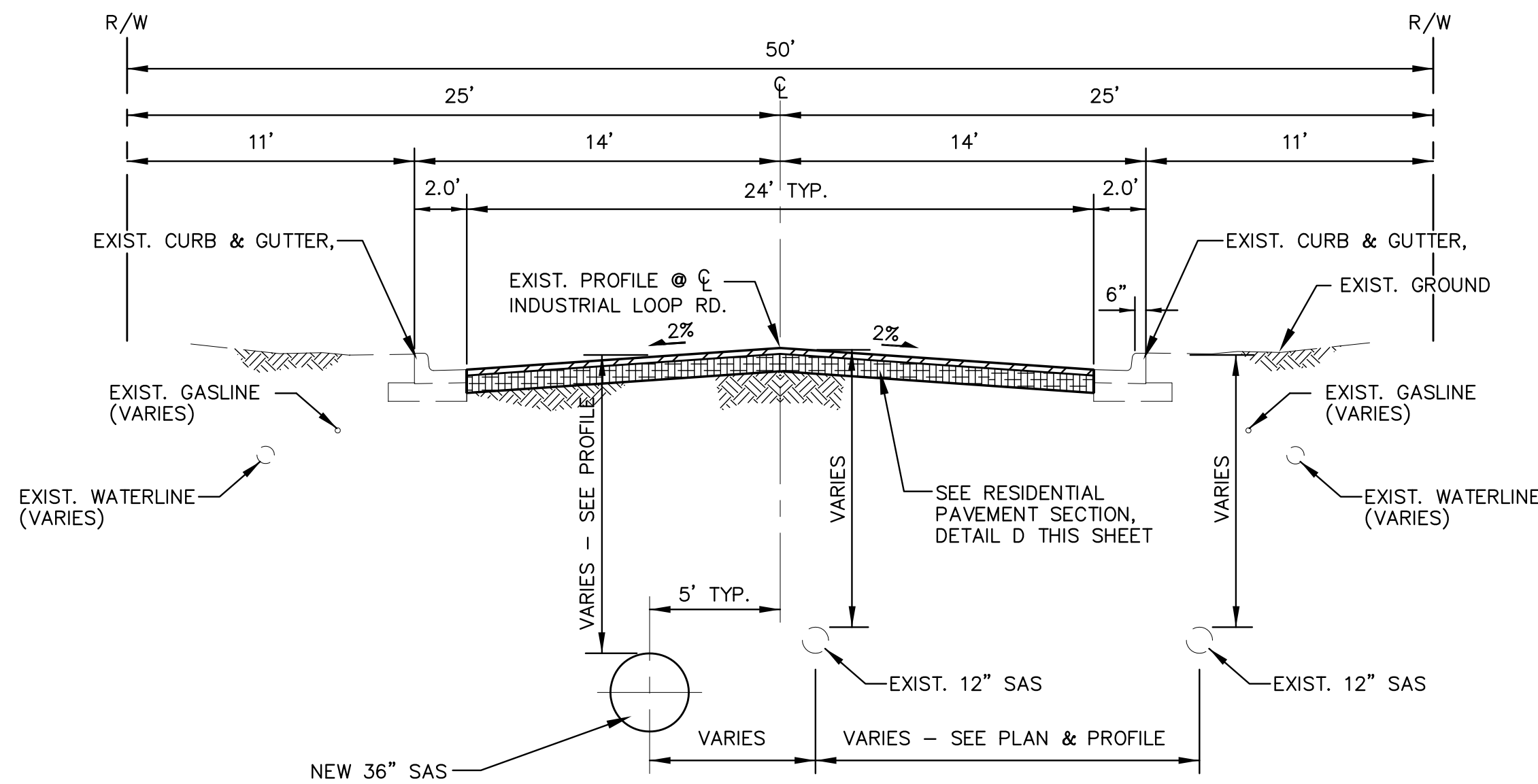
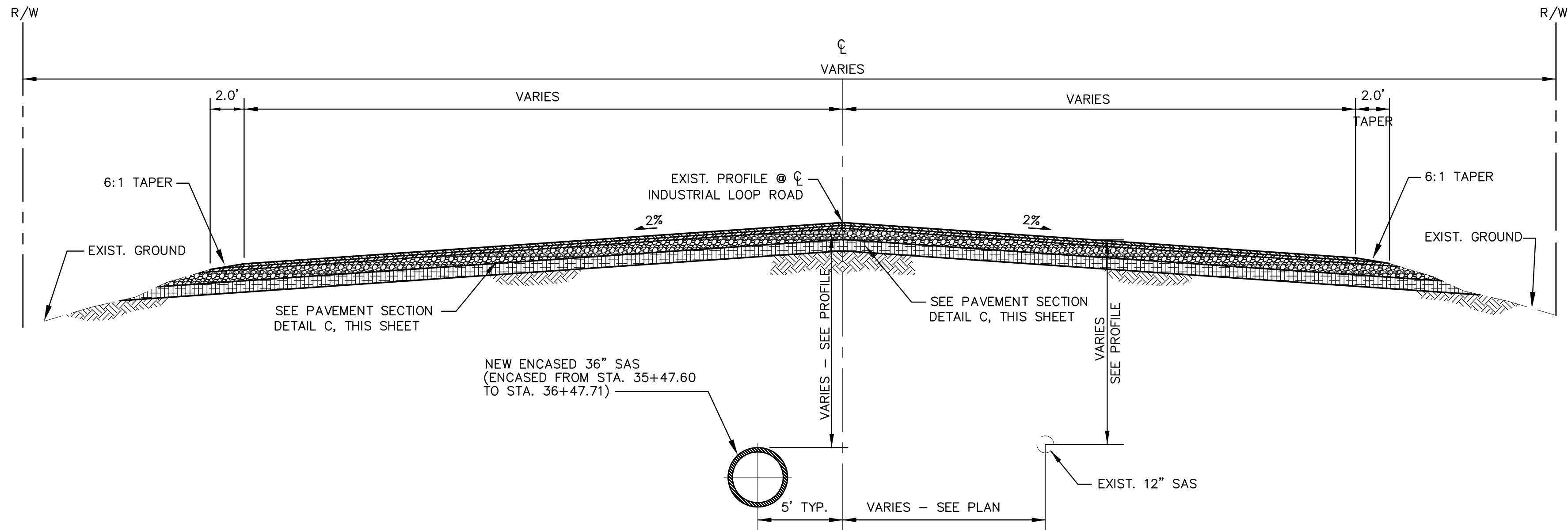
HUTT-ZOLLARS
Hutt-Zollars, Inc.
333 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5411 Fax (505) 892-3259

UTILITY PLAN & PROFILE SHEET

SANITARY SEWER LINE
AZTEC, NEW MEXICO



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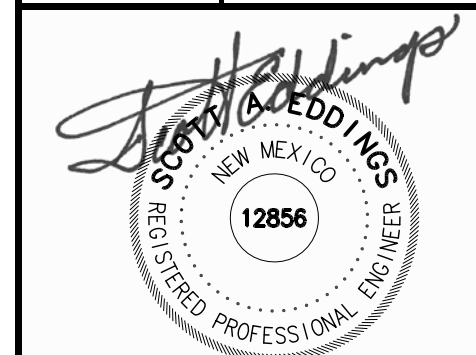
REVISIONS (OR CHANGE NOTICES)	
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Designed By:
HUITT-ZOLIARS
Huitt-Zoliars, Inc. a Branch
533 Rio Rancho Drive NE Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259
Designed For:

CITY OF AZTEC

UTILITY DETAILS

SANITARY SEWER LINE
AZTEC, NEW MEXICO

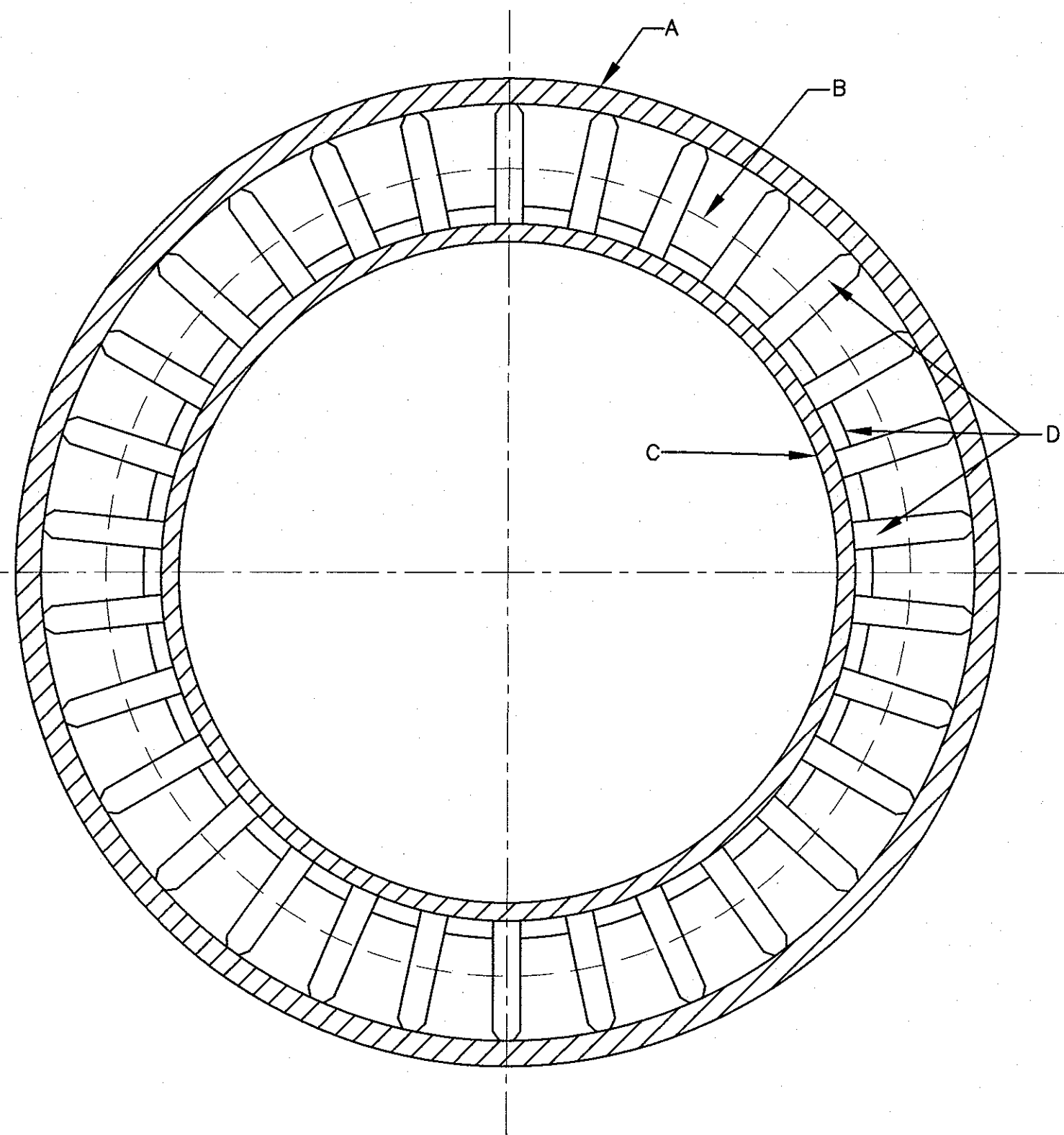


11/13/12

PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY:
DATE: NOV. 13, 2012
DPW CHK: -

SHEET:
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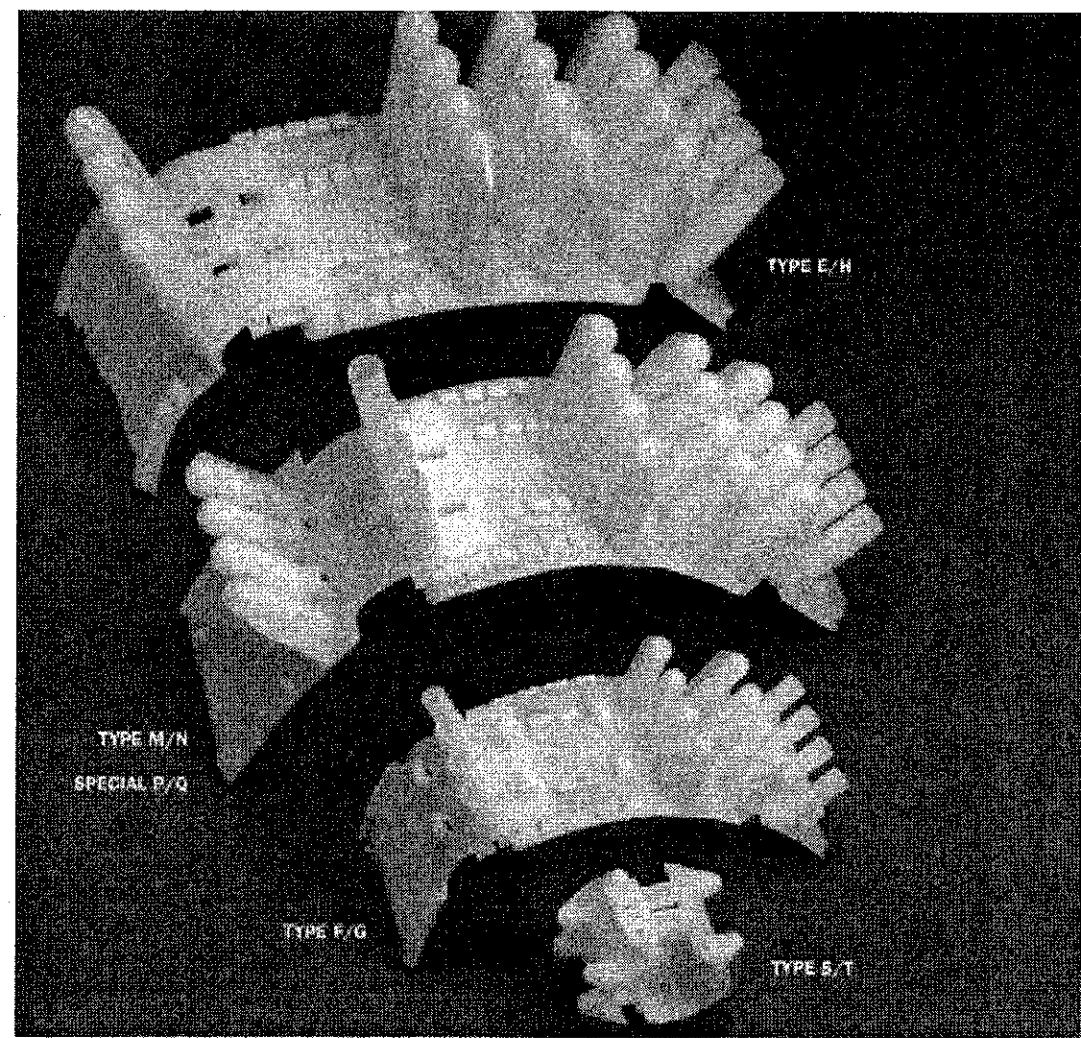
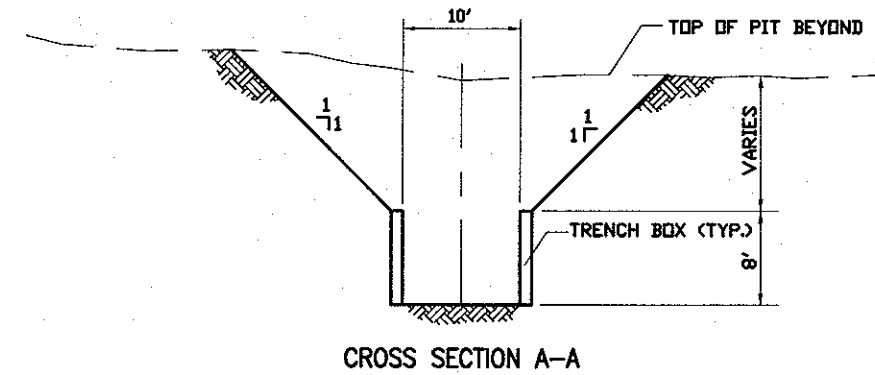
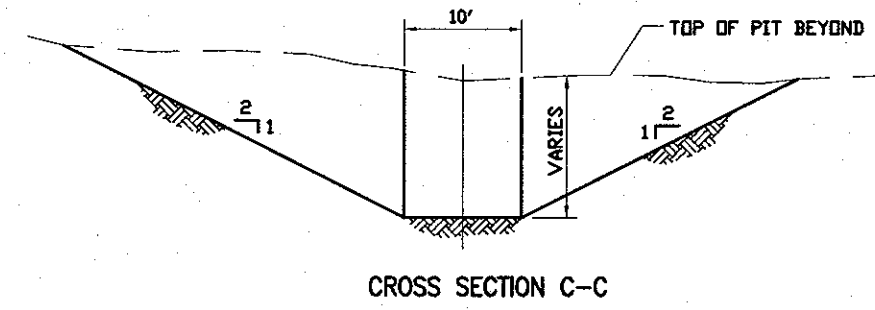
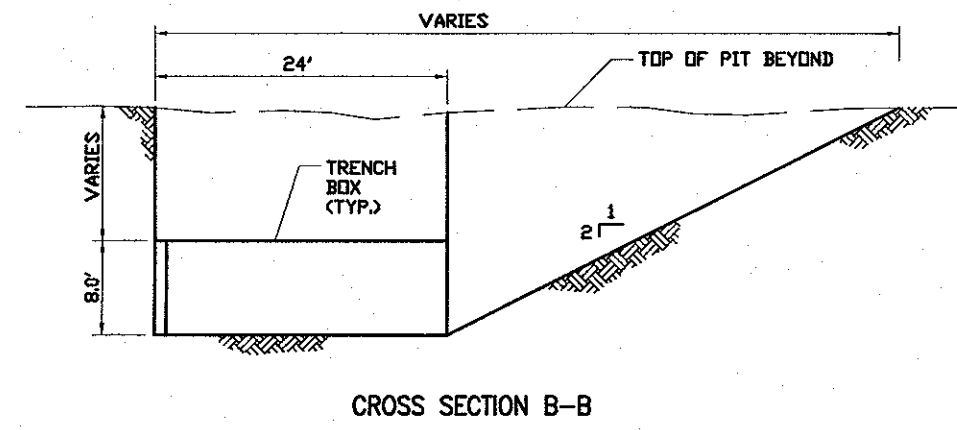
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CONSTRUCTION NOTES

- 42" ID WELDED STEEL PIPE CASING, A52 GRADE B, 35,000 YIELD STRENGTH
- BELL DIAMETER OF CARRIER PIPE—SEE MANUFACTURER SPECS
- 36" HDPE DR21, SAS LINE PIPE
- MANUFACTURED CASING PIPE, APS RACI SPACERS OR APPROVED EQUAL.
- INSTALL 48 LB SACRIFICIAL MAGNESIUM ANODE EVERY 25 LF ON CASING IN ACCORDANCE WITH MAUFACTURERS RECOMMENDATIONS. NOTE: CATHODIC PROTECTION IS INCIDENTAL TO CASING.

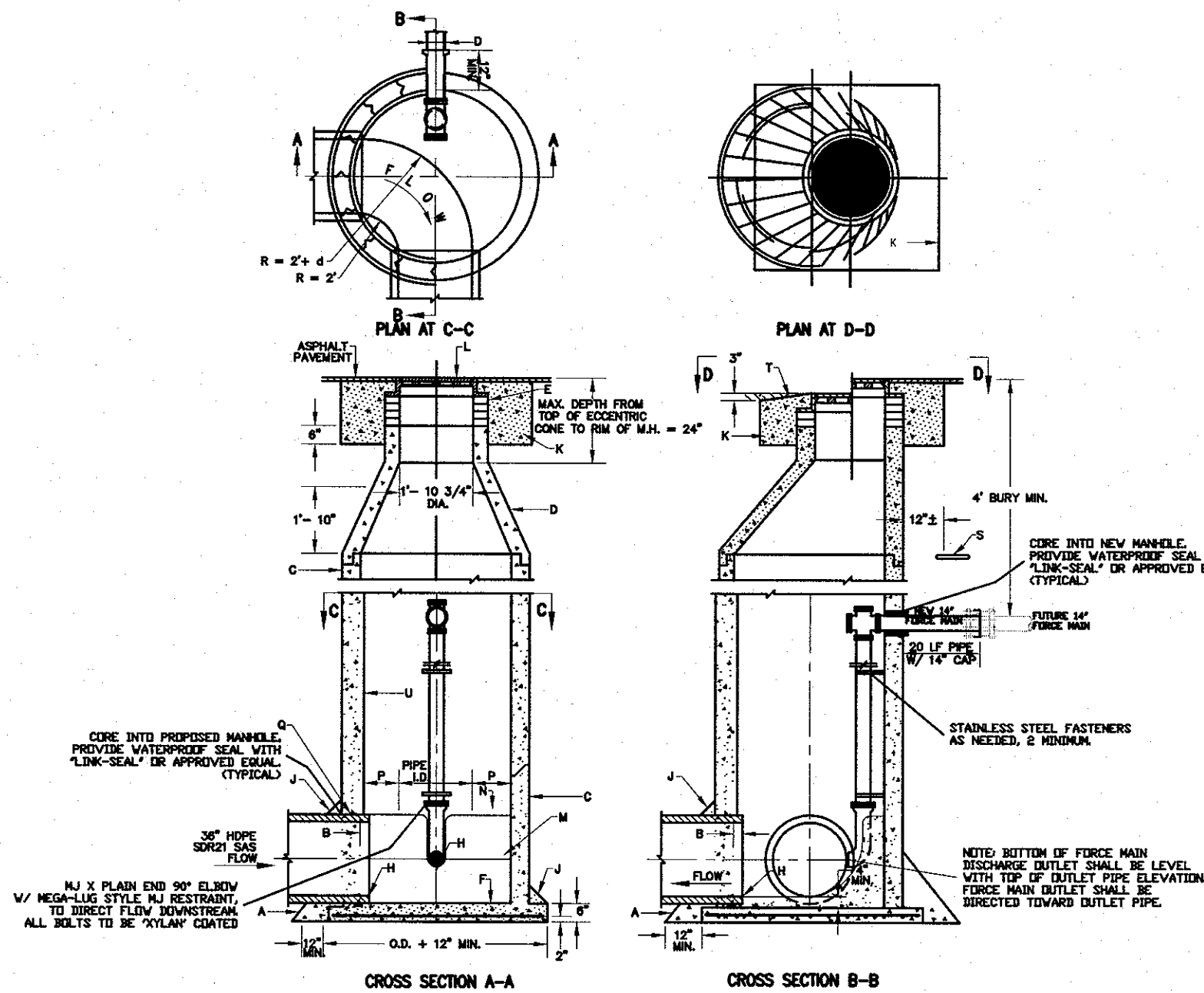
TYPICAL CASING AND CARRIER PIPE
N.T.S.



RACI SPACER TYPE E/H
N.T.S.

E/H Large Diameter Pipe
8.7-134.41 inches or 221-3414 mm

* INCIDENTAL TO COST OF CASING.



GENERAL NOTES

- TYPE F SHALL NOT BE USED FOR DEPTHS LESS THAN 4' MEASURED FROM INV. TO RM.
- M.H. GREATER THAN 16' IN DEPTH SHALL BE OF PRECAST CONC. SECTIONS ONLY.
- DESIGN APPLIES TO 4' AND 6' I.D. MANHOLES.
- USE NON-SHrink GROUT FOR JOINTS, FILLETS & PIPE PENETRATIONS.
- COMPACT ALL BACKFILL AROUND M.H. TO 95%.
- POSITION ALL OPENING OVER THE UPSTREAM SIDE OF MAIN LINE.

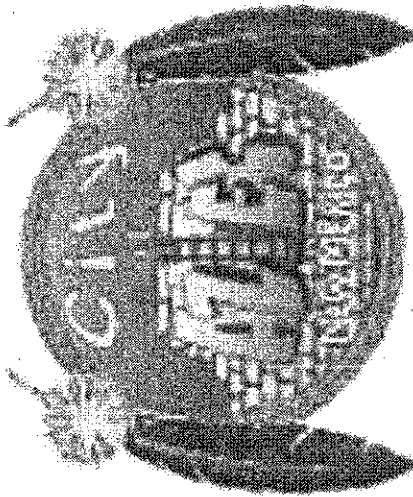
CONSTRUCTION NOTES

- CONCRETE PIPE SUPPORTS SHALL EXTEND OUTSIDE OF M.H. TO BELL OF FIRST SORT AND SHALL GRADLE PIPE TO SPRING LINE.
- PIPE PENETRATION INTO MANHOLE SHALL BE FLUSH TO 2" MAX. MEASURED AT SPRINGLINE OF PIPE.
- MANHOLE SHALL BE PRECAST REINFORCED CONCRETE.
- PRECAST REINFORCED CONCRETE EXISTING CONE. THE CONTRACTOR SHALL PROVIDE SHOP DRWG. FOR APPROVAL OF 9" WALL THICKNESS, TOP.
- USE MAX. 4 COURSES OR 16 BRICK ON UNPAVED STREET FOR FUTURE ADJ. OF FRAME TO PAVEMENT GRADE. PLASTER INSIDE WITH 1/2" MORTAR.
- BASE TO BE POURED IN PLACE USING NO. 4 BARS AT 8" O.C. EA. WAY FOR 16" DEPTH OF 16" OR GREATER. NO. 4 BARS AT 12" O.C. EA. WAY FOR 16" LESS THAN 16" DEPT.
- INV. ELEV. OF STUB OR LATERAL AS SHOWN ON PLANS.
- 6" GROUT FILLET ON UPPER HALF OF PIPE AND AROUND BASE.
- USE A 9" X 9" CONCRETE PAD IN ALL AREAS.
- NEEMAN R-1741-P1 MANHOLE FRAME, SOLID LID WITH REMOVABLE CENTER LID.
- CONCRETE FILL, 3000 PSI.
- SLOPE 1" PER FT. FROM PIPE GROUND.
- SHED TO BE 9" WIDE MAX.
- APPROVED WATERSTOP TO BE WITH TYPE OF PIPE.
- END ON UNPAVED AREAS.
- 14" FLANGE CROSS. BLIND FLANGE W/ STAINLESS STEEL BOLTS. PROVIDE PLASTIC WASHERS FOR ALL BOLTS AND NUTS TO PREVENT DIRECT CONTACT BETWEEN DI AND SS MATERIALS. FORCE MAIN OUTLET SHALL BE DIRECTED TOWARD OUTLET PIPE.
- IN UNPAVED AREAS SET FRAME TO GRADE AND SLOPE TOP OF PAD.
- INTERIOR SURFACE COATING: PROVIDE PLASTIC WASHERS FOR ALL BOLTS AND NUTS TO PREVENT DIRECT CONTACT BETWEEN DI AND SS MATERIALS.

PAINTING AND SPECIAL COATING

APPLIED TO CONCRETE SUBJECT TO SUBMERSION IN SEWAGE, SOIL, SLUDGE, OR OTHER CORROSIVE LIQUID. THIS TYPE OF CONCRETE WILL NOT RECEIVE COLORED COATING.

- SURFACE PREPARATION: ALL SURFACES TO BE CLEANED BY SANDBLASTING, WIRE BRUSHING OR OTHER SUITABLE METHOD.
- REMOVE ALL TRACES OF PREVIOUS MATERIALS, LOOSE CONCRETE (BY CHIPPING) AND LEAVE ONLY SOUND, FINELY BONDED CONCRETE.
- PAINT SURFACE SHOULD BE REASONABLY SMOOTH AND FREE OF Voids, CRACKS, DIRT, OIL, GREASE, LANTHANE OR OTHER CONTAMINANTS.
- PRIME COAT - 40 MIL THICKNESS MINIMUM.
- INTERMEDIATE COAT - 40 MIL THICKNESS MINIMUM.
- FINISH COAT - 40 MIL THICKNESS MINIMUM.
- AMERCOAT 79.
- AMERCOAT 79.
- OR ENGINEER APPROVED EQUIVALENT.



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Designed By: **HUIT-ZOLIARS**
Huit-Zoliars, Inc.
333 Rio Rancho Drive NE Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

Designed For: **CITY OF AZTEC**

UTILITY DETAILS

SANITARY SEWER LINE
AZTEC, NEW MEXICO

11/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

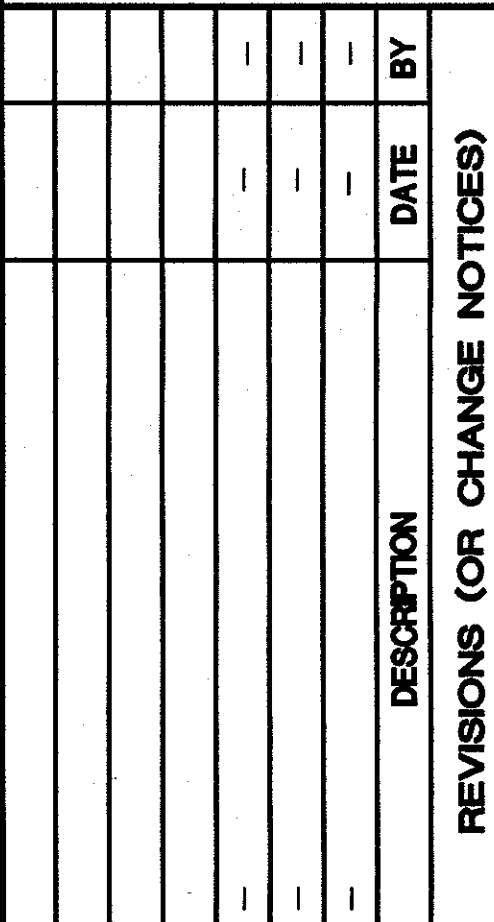
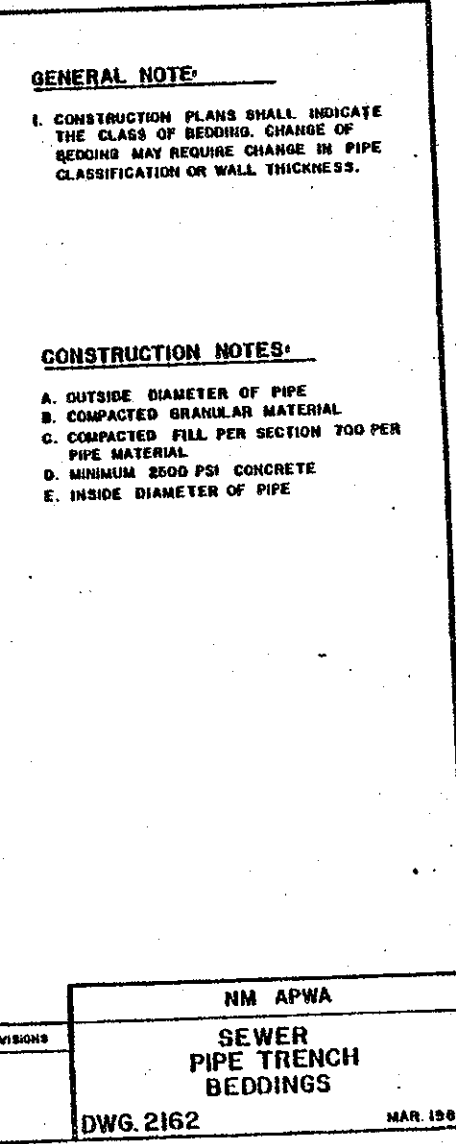
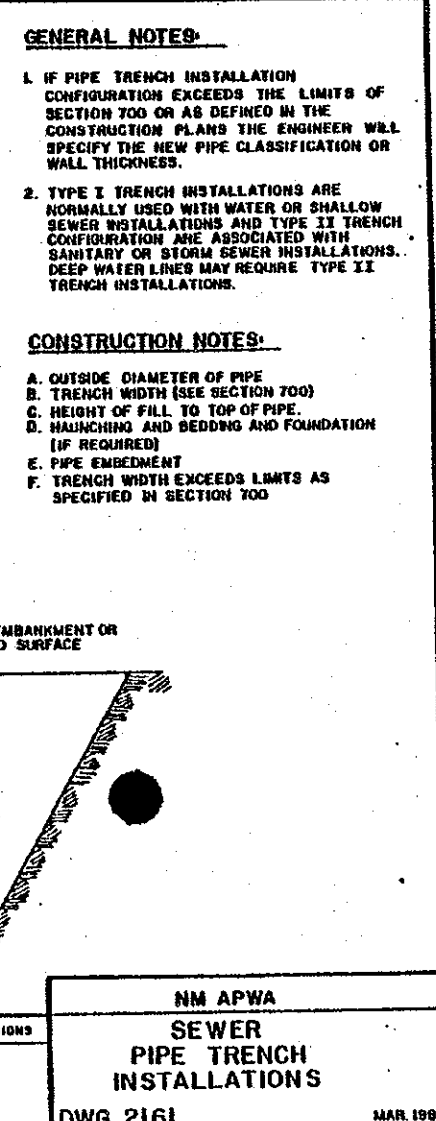
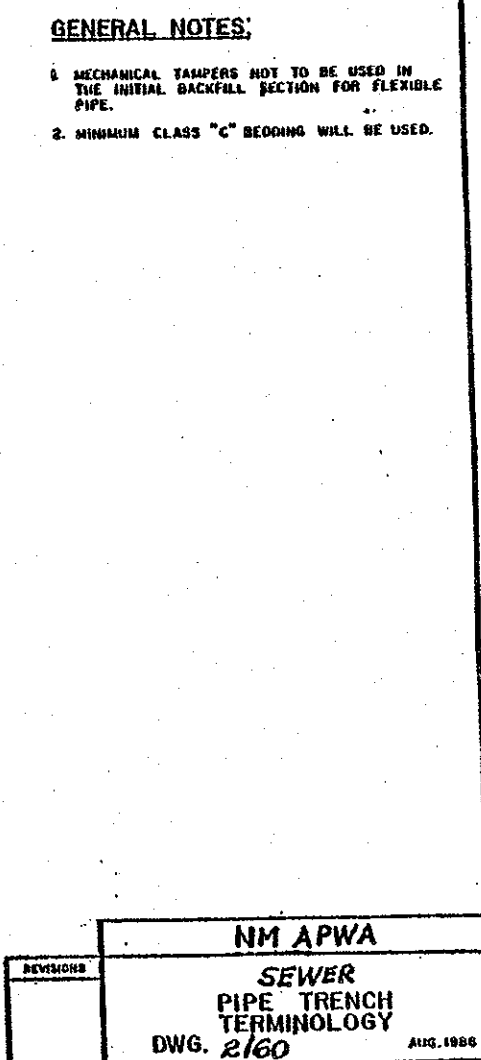
DRAWN BY: LRT

CHECKED BY:

DATE: NOV. 13, 2012

DPW CHK: -

SHEET: **U10**



CITY OF AZTEC

**SANITARY SEWER LINE
AZTEC, NEW MEXICO**



SHEET:

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EXHIBIT “A”

UTILITY SURVEY DATA REQUIREMENTS

The following “metadata” (“data about data”) shall be submitted with each utility’s as built and the electronic file, preferably as a separate text file on submittal media. This information is critical to the Department so as to properly archive the data, as well as to provide follow-up capability in the event problems arise with the data:

1. District Utility Permit Number
2. Name, address and phone number of responsible Land surveyor.
3. Date of completion of survey.
4. Equipment used to conduct the survey (e.g. total station, GPS, Sprit level).
5. Reference mark(s) used to tie the survey to State Planes Coordinate System 1983 and to the American Vertical Datum 1998.
6. Ground to Grid combine scale factor used.

NOTE THAT ELEVATIONS SHALL BE PROVIDED EVERY 500’ AND AT ALL BREAK POINTS, INCLUDING ALL HIGH AND LOW POINTS.

ALL WORK MUST COMPLY WITH THE NEW MEXICO HIGHWAY AND TRANSPORTATION DEPARTMENT, RAILROAD AND UTILITIES MANUAL (1996).

FAILURE TO COMPLY WITH THESE REGULATIONS MAY BE GROUNDS TO REVOKE THIS PERMIT.



NEW MEXICO DEPARTMENT OF TRANSPORTATION
(NMDOT)

UTILITY PERMIT CONSTRUCTION NOTIFICATION FORM

The permit applicant shall complete this form in order to notify the NMDOT D5 Permit Unit on the status of all utility construction activities. The "Notice to Begin Utility Construction" shall be mailed, delivered or faxed to the NMDOT D5 Permit Unit prior to the construction of the utility. The "Notice of Utility Construction Completion" shall be similarly mailed, delivered or faxed to the NMDOT D5 Permit Unit upon the completion of the utility. The mailing address is as follows NEW MEXICO DEPARTMENT OF TRANSPORTATION DISTRICT FIVE-PERMIT UNIT P.O. BOX 4127 SANTA FE, NM 87592-4127. The Fax number is (505) 995-7970. **WARNING: Failure to properly notify the Department, concerning your utility construction activities, may be grounds to revoke your permit.**

Utility Permit Number: _____ Date: _____

General Scope of work: _____

Contractor Name: _____

Contact Persons: _____

Contact Telephone: _____ () _____ Fax: _____ () _____

Traffic Control Firm: _____

Contact Person: _____

Contact Telephone: _____ () _____ - _____ Fax: _____ () _____ - _____

Work Zone Location Information: _____ 2 lane Road _____ 4 lane Road _____ 6 lane Road _____ 8 lane

Route: _____

From Mile Post: _____ To Mile Post: _____

Or Intersection: _____ Intersection: _____

Direction (NB, SB, EB, WB, or both): _____

Road _____ Divided _____ Undivided

Existing Speed limit area: _____ MPH or Ranges from _____ MPH to _____ MPH

Proposed Speed Limit reduction within work zone (If Applicable):

Nearest City, Town or Village:

Planned Working Duration:

Start Date: _____ / _____ / _____ End Date: _____ / _____ / _____

Daily Start Time: _____ : _____ End Time: _____ : _____

Signed _____ Title, Company _____

Print _____ Contact Telephone: _____

Purpose of Notice: _____ Notice to Begin Utility Construction (Must be received five (5) days prior to your actual construction date).

_____ Notice of Utility Construction Completion (Must be received five (5) days after your actual construction completion date).

Contractor/TCP firm **SHALL** contact Mr. Javier Martinez at 995-7800 and confirm the actual start dates so that it can be included in the D5 Weekly Traffic Report.

The applicant will protect, indemnify, defend, and hold the New Mexico Department of Transportation harmless from any injury or damage caused by the applicant, or third parties, by applicant's failure to comply with the above.

APPLICATION FOR PERMIT TO INSTALL UTILITY FACILITIES
WITHIN PUBLIC RIGHT OF WAY

Permit No. _____
Renewal Permit
Relocation
Remain in place
New Installation

TO: NEW MEXICO DEPARTMENT of TRANSPORTATION
P.O. BOX 1149
SANTA FE, NEW MEXICO 87504 - 1149

1. Pursuant to New Mexico Statutes Annotated, 1978 Compilation, Sections 67-8-13 and 55-2-7, and 17.4.2 NMAC the undersigned
Huitt-Zollars, Inc. on behalf of the City Of Aztec

Address: 333 Rio Rancho Drive NE Suite 101 Rio Rancho, NM 87124

herein makes application to use highway rights of way to install:

Size and Type of Facility Install 18" HDPE DR21 SAS Line. Approximately 7,349 feet

in the following location: N.M. Project No. _____, S.R. No. 576 8u NM-650

Highway Station / and or GPS/MP 36°49'34"N, 108°00'12W 13.2 to Highway Station and/or
GPS/MP 36°49'35N, 108°00'12W

San Juan County, Section 8, Township 30N, Range 11W

2. For the purpose of this application "within" shall be construed as meaning "on, upon, over, under, across or along."
- "Engineer" shall be construed as meaning the District Engineer of the New Mexico Department of Transportation or the District Engineer's representative.
 - "Applicant" shall be construed as meaning the individual, firm, corporation, association, governmental subdivision, or other organization making application, or the successors of any of the above.
 - "Facility" shall be construed as meaning, but not limited to any publicly, privately, cooperatively, municipally or governmentally owned facility used for carriage, distribution or transmission of water, gas or electricity, oil and products derived therefrom, sewage, stream or other projects carried by means of pipelines, conduits, wires, culverts, ditches, conveyors or other methods.
 - If application is for a parallel installation, justification as to why private right may not be utilized must be furnished.
3. Applicant proposes to relocate, install or leave facility 125 feet within the North & South right of way line. The proposed installation shall be:
- | | | |
|------------------------|--------------------------|---|
| <u>Crossing</u> | <u>Subsurface</u> | <u>Trench</u>
<u>(area beneath bridge)</u> |
| (Crossing or Parallel) | (Subsurface or Overhead) | (Boring, Jacking or Pavement Cut) |
- If Applicant requests installation by pavement cut, complete justification therefore shall be submitted by attachment.
 - Where application for pavement cut is justified, the application may be held in abeyance pending receipt of cash bond in an amount to be fixed by the Engineer.
4. There is attached hereto a diagrammatic dimensioned drawing showing the location of existing and/or proposed installation referenced to roadway and right of way, right of way lines, any access control lines, distance of proposed installation above, or below grade, highway stationing, identification of materials to be used and any other pertinent data. If application is for parallel installation, nature of adjacent land use must be shown. Proposed installations on or in bridges or other structures, or for the installation of any structures, shall require detailed structural drawings.
5. Applicant desires this permit to be in affect for 25 years. Permit shall not be issued for a period longer than 25 years, and must be renewed upon expiration. The burden of timely renewal is on the Applicant. The Applicant shall formally notify the engineer of actual commencement and completion of construction of the installation. The Applicant shall also formally notify the Engineer of removal or abandonment of the facility, or relinquishment of the permit.
6. This application shall be validated as a permit upon the signing of the application by the Engineer and returning it to the applicant. The granting of this permit shall not be construed as granting any easement or property right.
7. Servicing of facilities shall not be permitted within the access control lines on any controlled access project. Should an emergency occur, the Applicant shall notify the Engineer and shall provide such flagmen, flashers, warning or other safety devices as required by the Engineer. All routine maintenance shall be performed from outside any access control lines.
8. The relocation or installation of facilities within public right of way shall be in strict conformance with all applicable provisions of

regulations of the New Mexico Department of Transportation, 17.4.2 NMAC, all provisions of this application, drawing and the Instructions for Utility Permits, as they may be modified by the Engineer, and no departure therefrom may be made without the written consent of the Engineer. All facilities shall be so placed that they will not interfere with or endanger any roadway features or other existing facilities. All construction of facilities shall be subject to the inspection and approval of the Engineer. All such work shall be performed so that danger, inconvenience and delay to the traveling public will be held to a minimum. Protection and handling of traffic during the installation are the responsibility of the Applicant and must be approved by the Engineer.

9. The Applicant shall, except as otherwise ordered by the Engineer, restore the public right of way, and all bridges or other structures thereon or adjacent thereto which have been altered or affected by facility installation performed hereunder, in accordance with sound construction practices and the Engineer's specifications, and shall cause the work to be done in a workmanlike manner. If any damage is caused to the highway right of way or to any bridge, structure or improvement thereon or adjacent thereto by reason of the design installation, maintenance, alteration or removal of such facilities or other appurtenances, the Applicant shall reimburse the Engineer the full amount thereof promptly upon demand by the Engineer provided, however, that the obligation imposed under this paragraph shall not apply in the event the damage resulted from causes beyond the control of the Applicant or its contractors or its consultants. All such facilities located within the right of way shall at all times be kept in such repair so as not to damage the highway, inconvenience or endanger the traveling public and shall be kept free from advertisement, posters and the like.
10. Should the Applicant at any time fail to promptly and fully perform any of the obligations imposed hereby and after thirty (30) days written notice thereof, the Engineer may, at his option (a) cause the obligations to be fully carried out and performed, and the Applicant shall promptly reimburse the Engineer for all costs and expenses incident thereto, or (b) summarily order the removal of such facility and if the Applicant fails to comply with that removal order within a reasonable time, the Engineer may direct the removal of the facility with all costs and expenses thereto to be borne by Applicant.
11. If by reason of any change in the location, construction, grade or by any other matter affecting the highway upon which any facility is located or because of changing traffic conditions or otherwise, it shall become advisable in the opinion of the Engineer that said facility be removed, relocated or otherwise modified, the Applicant, upon written notice from the Engineer, shall remove, relocate or modify such facility without undue delay in such manner as the Engineer may direct or approve, at the Applicant's expense and at no cost to the Engineer, the New Mexico Department of Transportation or the New Mexico State Transportation Commission. All facilities located on public right of way under the dual jurisdiction of the State and a subordinate governmental entity shall comply with all applicable rules and regulations of such entity properly and lawfully in force and including but not limited to provisions of local franchises not in conflict with the rules and regulations of the New Mexico Department of Transportation. The Engineer makes no express or implied as to the continued existence of any highway in any particular location and expressly assumes no obligation with regard to the facility upon change, vacation or abandonment of any highway or portions thereof.
12. Neither the making of this application nor anything herein contained shall constitute a waiver on the part of the Applicant of any rights or claims had or made by some with respect to the occupancy of the streets and highways under the Constitution and Laws of the State of New Mexico, nor shall anything herein contained in any prejudice or impair any rights or claims existing independent of this application with respect to the construction, operation and maintenance of the Applicant's facilities in the State of New Mexico.
13. The utility owner must indemnify and hold harmless the New Mexico Department of Transportation from loss due to any negligent act of the utility, the utility's employees, any agent acting on the utility's behalf, and anyone else engaged by the utility to work on the utility installations, maintenance or relocations of their facilities. Any contractor or subcontractor engaged by the utility to perform utility installations or relocations in conjunction with or prior to highway construction must also indemnify and hold harmless the New Mexico Department of Transportation from loss due to any negligent act of the utility's contractor or subcontractor.
14. Each copy of the application shall be signed by the Applicant as an individual owner or by any official designated to execute such documents.
15. Utility owners shall carry insurance in amounts not less than those below specified and as outlined in 17 NMAC 4.2 and the Standard Specifications for Highway and Bridge Construction, 1994 Edition, (hereinafter, "Specifications"), as may be updated from time to time. In the event of conflict between the specification, and the regulations, owner shall carry the larger amount of insurance. If a utility is self-insured, the utility shall provide an Owner's Protective Liability Insurance Policy, in favor of the Department, in the amounts below specified. **Department as additional named insured:** The utility, its contractor or subcontractor shall have the New Mexico State Highway and Transportation Department added as an additional named insured on the Comprehensive General Liability Form or Commercial General Liability Form furnished by the Utility.

This application is hereby granted subject to all provisions herein and including the following special provisions, changes or amendments:

The utility shall provide "as-built" horizontal and vertical location information in hard copy and electronic file (AutoCAD DWG (3D) or Microstation DGN (3D) format. The standard horizontal datum shall be North American Datum 1983 (NAD83) and the standard projections shall be the New Mexico State Plane

Coordinate System 1983 (NMSPCS83). The standard vertical datum shall be North American Vertical Datum 1988 (NAVD 1988). The preferred media in which this data must be submitted is CD ROM. The utility location information shall be tied to Department monuments and referenced to highway mileposts and/or to highway project construction stationing and certified by a New Mexico Registered Land Surveyor. Metadata or "data about the data" shall be submitted with each utility's as-built electronic file, preferably as a separate text file on the electronic submittal media, and shall include: 1. District Utility Permit Number. 2. Name, address and phone number of the responsible land surveyor. 3. Date of completion of survey. 4. Equipment used to conduct the Survey. 5. Horizontal and vertical control marks used to tie the survey to the NMSPC83 and NAVD88. 6. Ground to Grid combined scale factor used. 7. Elevations shall be provided every 500 feet and at all survey break points, including all high and low points.

Note: Highway projects are time sensitive therefore, permit information requested from Authorization to Engineer Letters must be returned by the date indicated within the Authorization to Engineer letter.

16. Pursuant to: MAP-21; <http://www.fhwa.dot.gov/construction/contracts/buyam-qa.cfm> and (23U.S.C313) Applicant/Utility Owner certifies we are in compliance with Buy America for said facility described in Section 1. of this permit document. Applicant agrees and understands nonadherence will void said permit.

Applicant Huitt-Zollars, Inc. on behalf of the City of Aztec

By Arthur J. Montoya (505-892-5141)

Title Technician

Approval of this permit is hereby given this _____ day of _____, 20 _____

NEW MEXICO DEPARTMENT of TRANSPORTATION

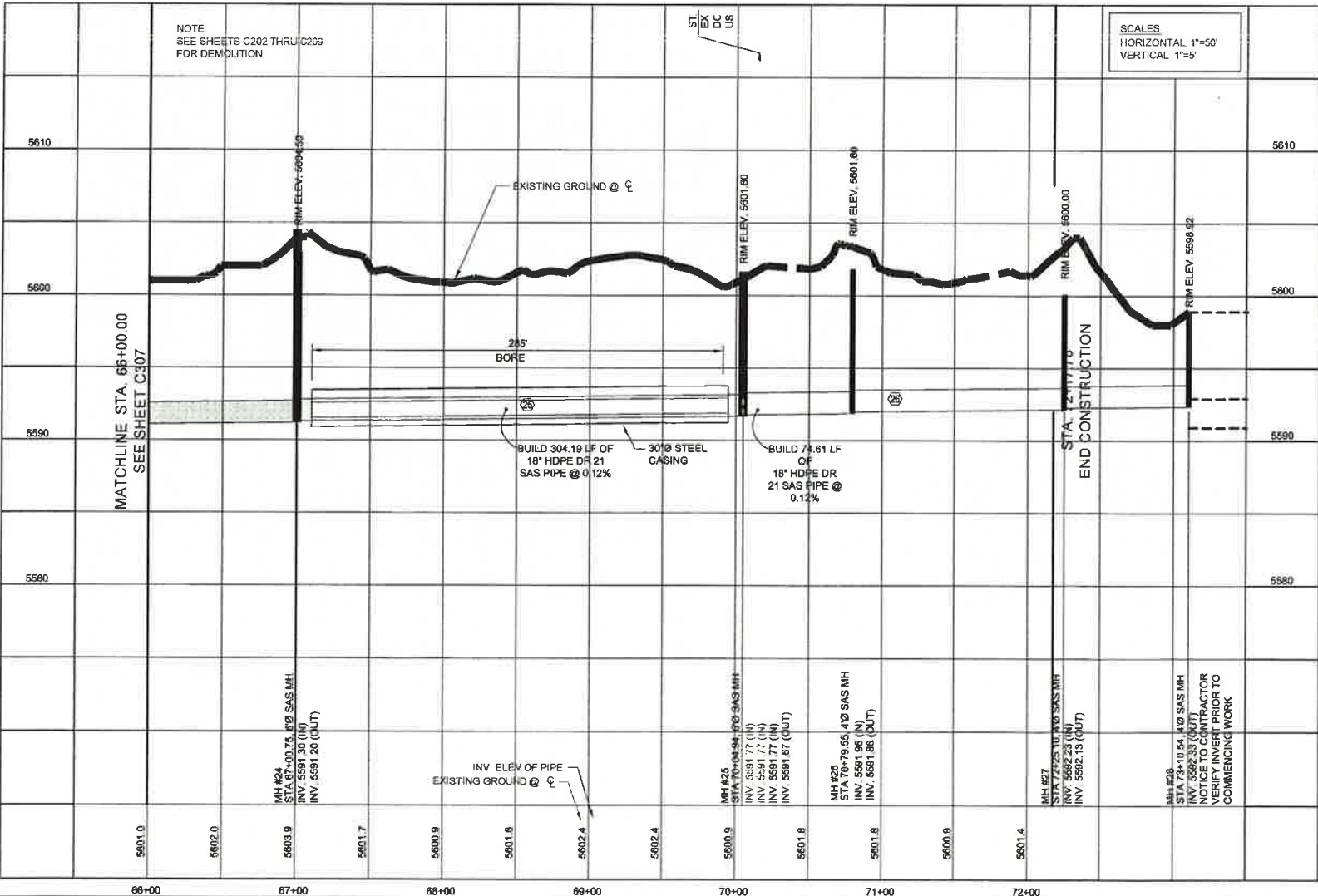
By _____

- LEGEND
- NEW SEWER LINE TO BE INSTALLED
 - NEW SAS MANHOLE TO BE INSTALLED
 - EX. VEGETATION
 - STEEL CASING & BORE PIT
 - SLOPE LIMITS



- EXISTING UTILITIES LEGEND
- | Quality Level B | Quality Level D | Utility: |
|-----------------|-----------------|--|
| Q1 A | Q1 A(D) | GAS LINE - New Mexico Gas |
| Q1 B | Q1 B(D) | TELEPHONE - Century Link |
| Q1 C | Q1 C(D) | ELECTRIC - City of Aztec |
| Q1 D | Q1 D(D) | WATER - City of Aztec |
| Q1 E | Q1 E(D) | FIBER OPTIC - City of Aztec |
| Q1 F | Q1 F(D) | SANITARY SEWER - City of Aztec |
| Q1 G | Q1 G(D) | PETROLEUM PIPELINE - Enterprise Products |
| Q1 H | Q1 H(D) | PETROLEUM PIPELINE - Conoco Phillips |
| Q1 I | Q1 I(D) | OVERHEAD ELECTRIC |

SANITARY SEWER LINE



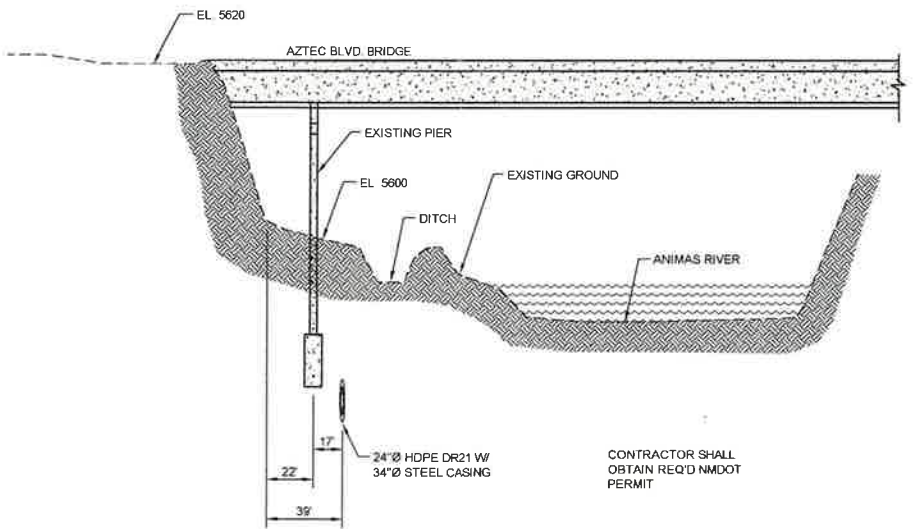
CONSTRUCTION NOTES

STA. 72+17.78
END CONSTRUCTION

1 BORE CONSTRUCTION SEE SHEET C402

SEWER LINE DATA

BEARING	LENGTH
N 44° 12' 13" E	304.19'
N 39° 11' 34" E	219.35'



SECTION A-A

NTS



NO.		DESCRIPTION	DATE	BY
7	6			
5	4			
3	2			
1				

Designed by
HUNT-ZOLARS
353 Rio Rancho Drive NE, Suite 101
Albuquerque, NM 87106
Phone (505) 882-9941 Fax (505) 882-9949

Designed by
CITY OF AZTEC

UTILITY PLAN & PROFILE

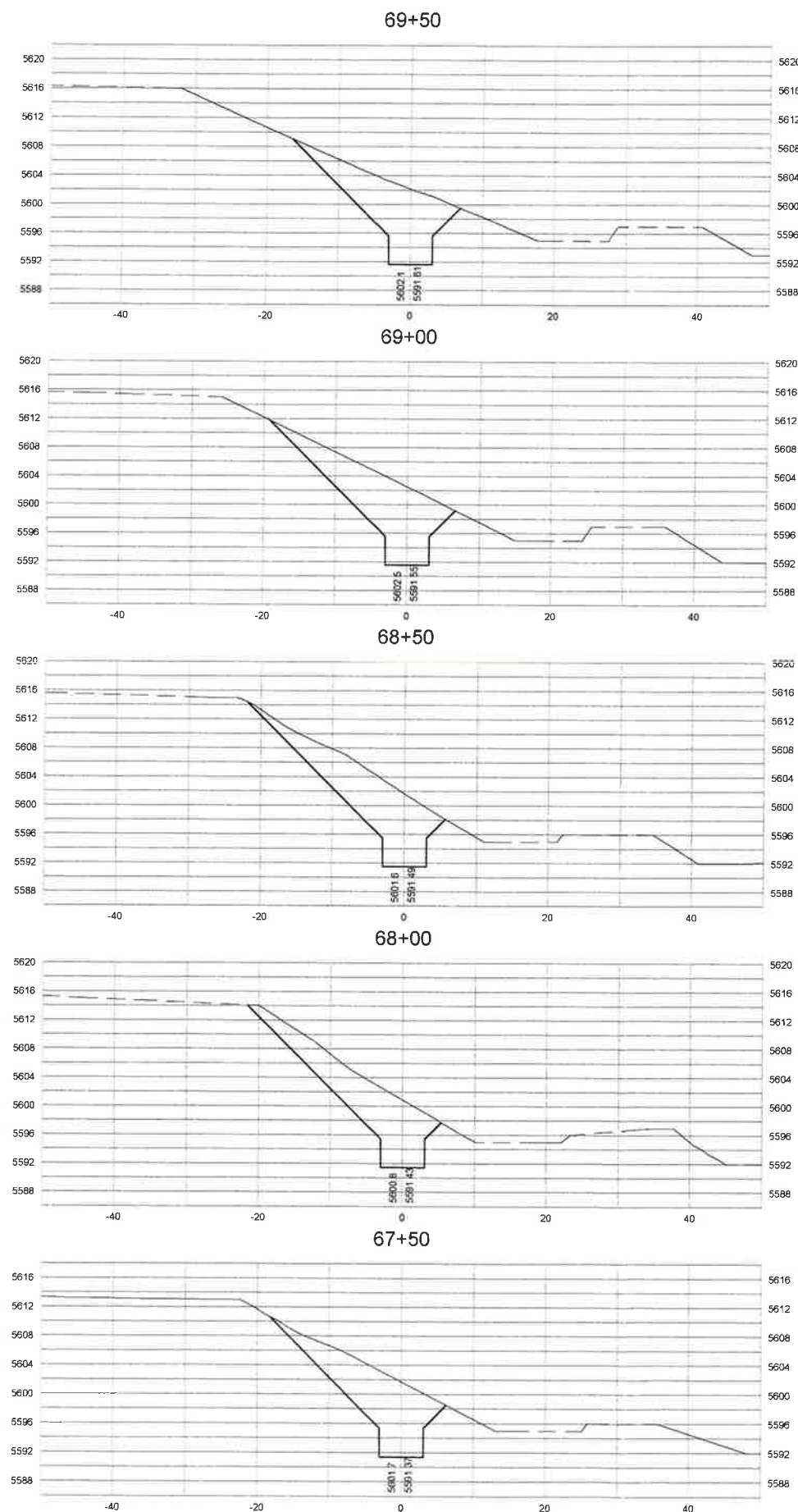
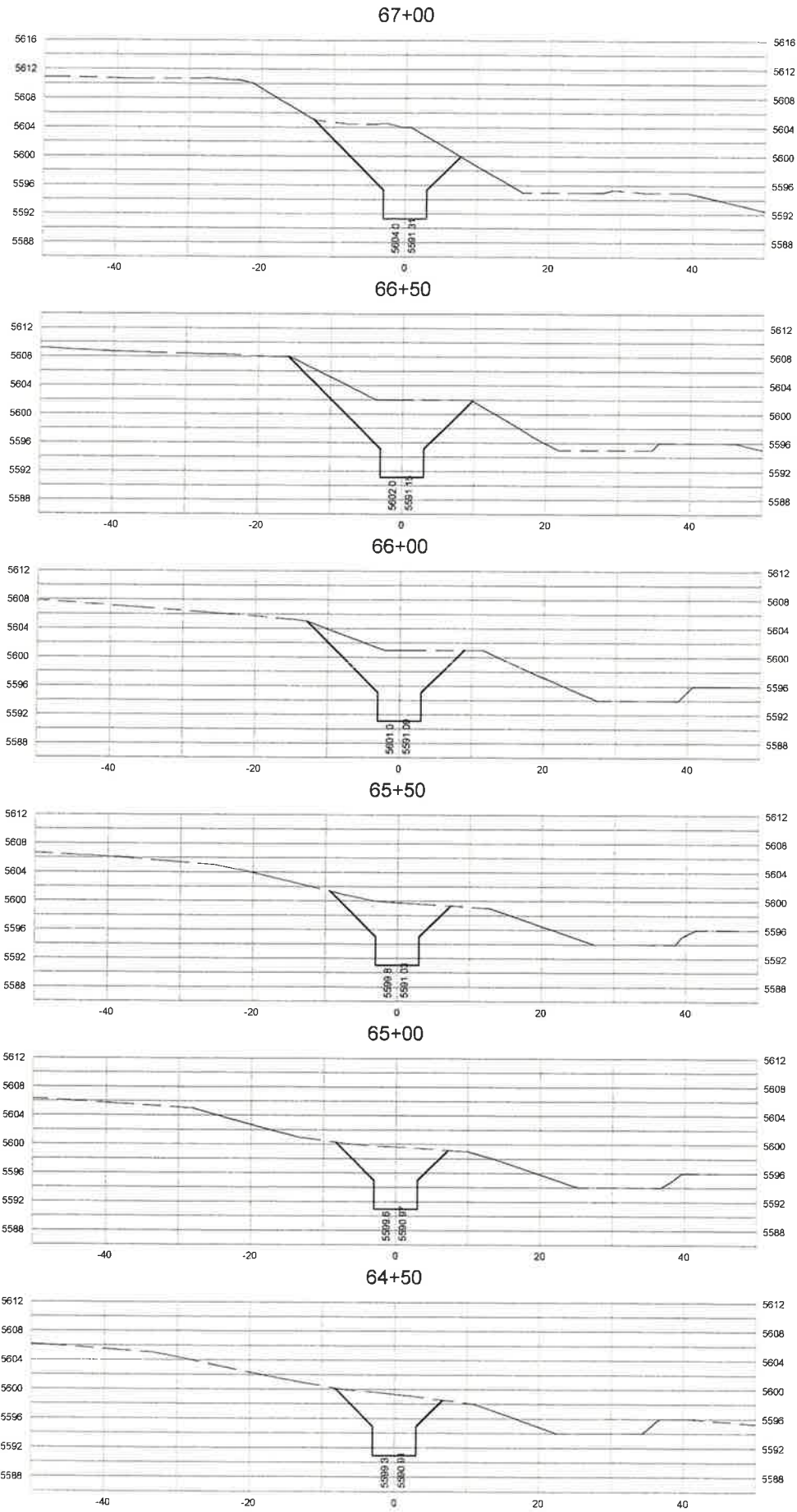
SANITARY SEWER LINE
AZTEC, NEW MEXICO



PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY: SAE
DATE: XXX, XX 2014
DPW CHK:
SHEET:

C308

Printed: 6/5/2014 10:25:13 AM By: M. J. Martinez, Author
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NO.		DESCRIPTION	DATE	BY
7	0			
6	0			
4	4			
3	2			
2	1			
1	0			

Designed By: **HUIT-ZOLARS**
Huit-Zolars, Inc.
3331 Rio Rancho Drive NE, Suite 201
Albuquerque, NM 87109
Phone (505) 882-8041 Fax (505) 882-8089
Designed For: **CITY OF AZTEC**

CROSS SECTIONS
SANITARY SEWER LINE
AZTEC, NEW MEXICO



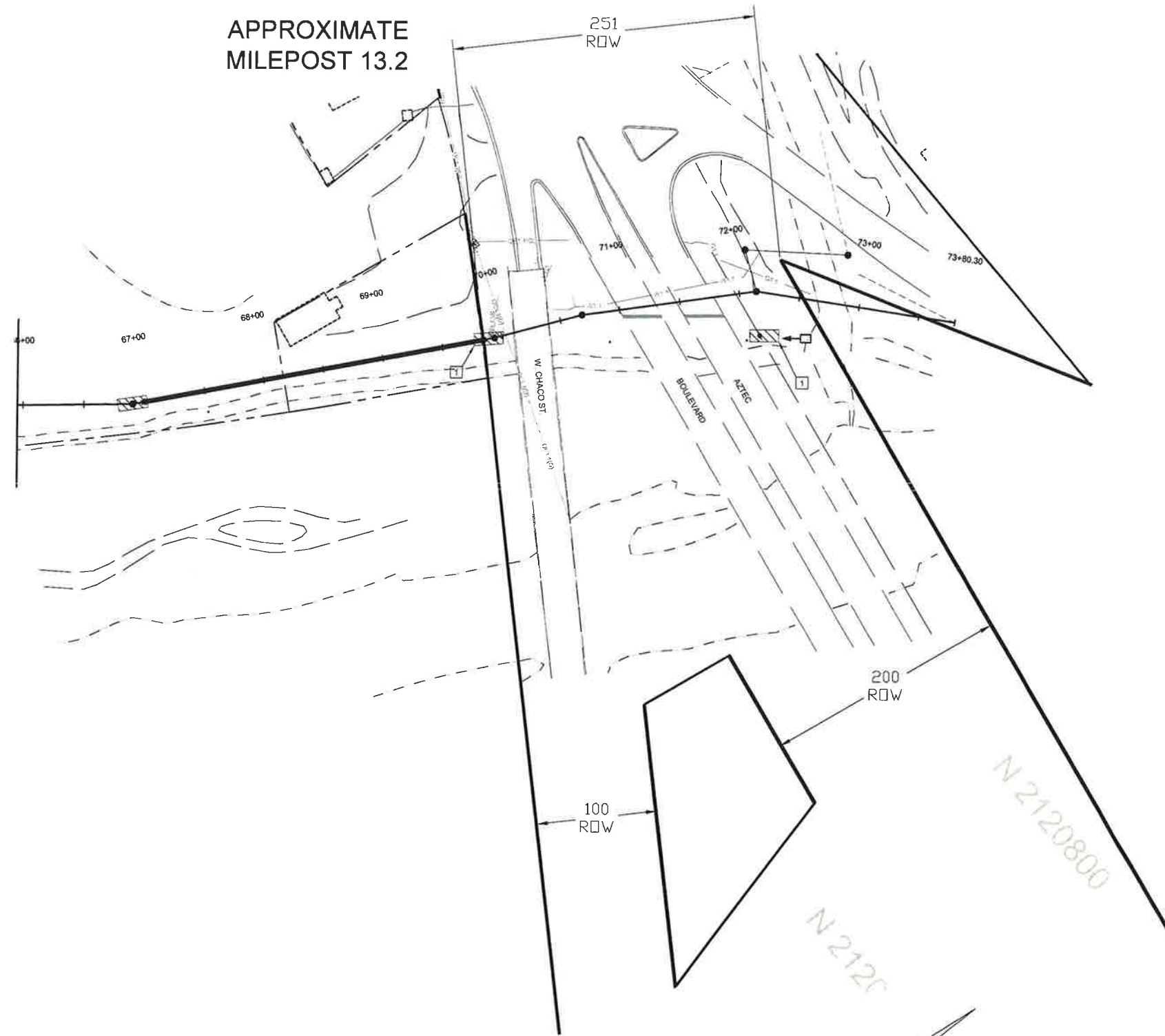
PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY: SAE
DATE: JAN 24, 2013
DPW CHK:

SHEET:
C511

PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY: SAE
DATE: XXX, XX 2014
DPW CHK:
SHEET:

LEGEND

- NEW SEWER LINE TO BE INSTALLED
- NEW SAS MANHOLE TO BE INSTALLED
- EX. VEGETATION
- STEEL CASING & BORE PIT
- SLOPE LIMITS



EXISTING UTILITIES LEGEND

Quality Level B	Quality Level D	Utility:
---	---	GAS LINE - New Mexico Gas
---	---	TELEPHONE - Century Link
---	---	ELECTRIC - City of Aztec
---	---	WATER - City of Aztec
---	---	FIBER OPTIC - City of Aztec
---	---	SANITARY SEWER - City of Aztec
---	---	PETROLEUM PIPELINE - Enterprise Products
---	---	PETROLEUM PIPELINE - Conoco Phillips
---	---	OVERHEAD ELECTRIC

RIGHT-OF-WAY INFORMATION



REVISIONS (OR CHANGE NOTICES)			
NO.	DESCRIPTION	DATE	BY
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6			
5			
4	DES3	DATE3	BY3
3	DES2	DATE2	BY2
2	DES1	DATE1	BY1
1			

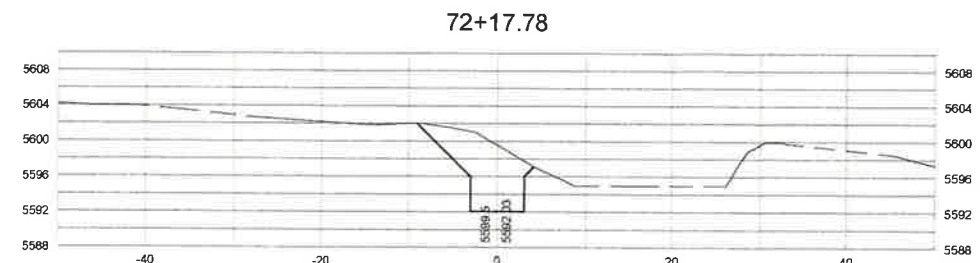
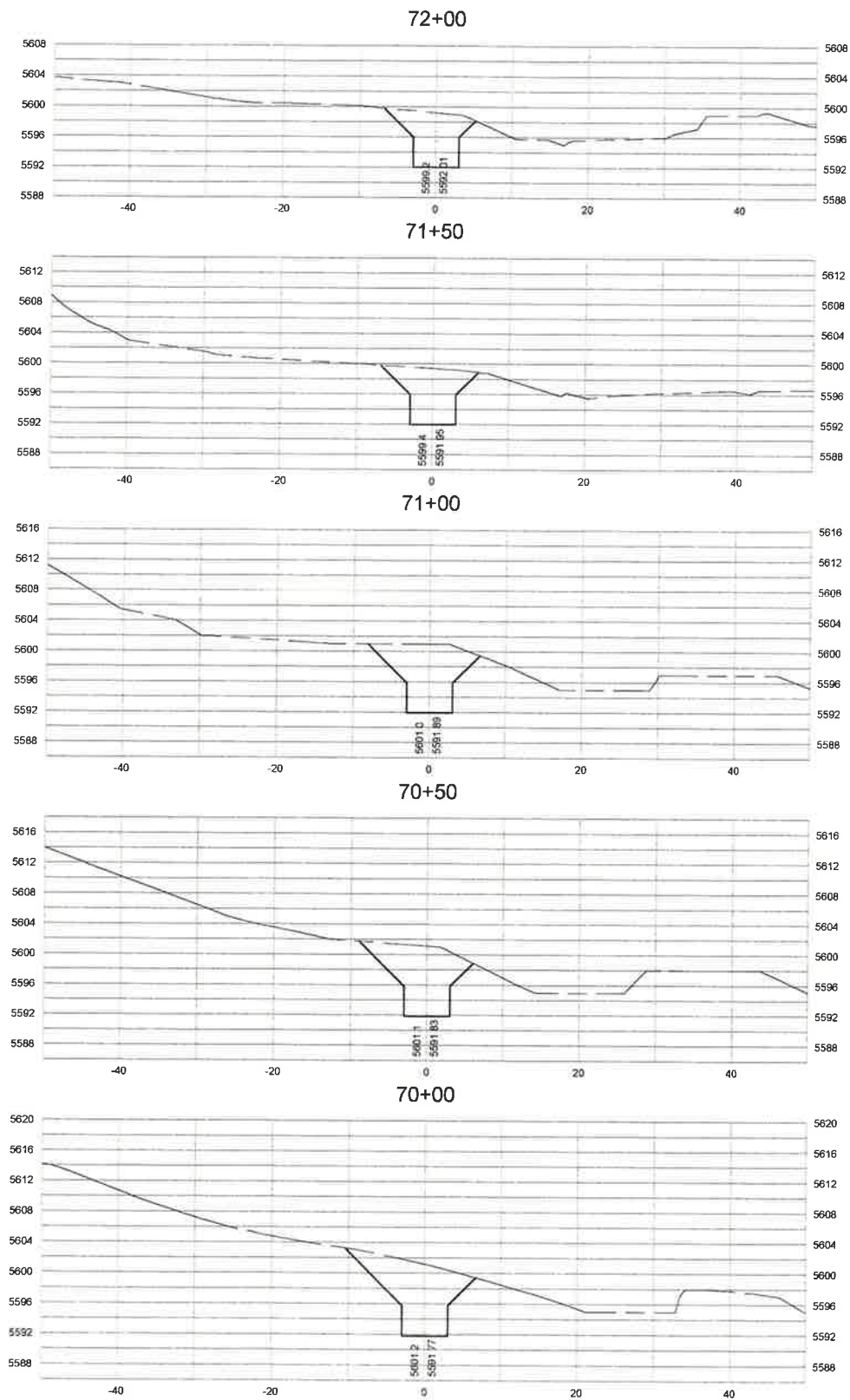
Designed By: **HUIT-ZOLIARS**
Huit-Zoliars Inc.
300 Rio Rancho Drive NE, Suite 201
Rio Rancho, New Mexico 87124
Phone (505) 962-9141 Fax (505) 962-9099

Designed For: **CITY OF AZTEC**

RIGHT-OF-WAY	SANTARY SEWER LINE AZTEC, NEW MEXICO
--------------	---

PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY: SAE
DATE: XXX, XX 2014
DPW CHK:
SHEET:

Plotted: 6/25/2014 10:22:28 AM, by: Montoya, A. J.
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Last Saved: 6/25/2014 4:18:30 PM, by: Montoya, A. J.



NO.		DESCRIPTION (OR CHANGE NOTICES)	DATE	BY
7				
6				
5				
4				
3				
2				
1				

Designed by

HUIT-ZOLIARS
Huit-Zoliars, Inc.
353 Rio Rancho Drive NE, Suite 301
Albuquerque, NM 87106
Phone (505) 882-8841 Fax (505) 882-3259

Designed by

CITY OF AZTEC

CROSS SECTIONS

**SANITARY SEWER LINE
AZTEC, NEW MEXICO**



PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY: SAE
DATE: JAN. 24, 2013
DPW CHK:

SHEET:
C512



**NEW MEXICO
ENVIRONMENT DEPARTMENT**



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

Suite 1000
121 Tijeras Ave NE
Albuquerque, NM 87102-3400
Phone (505) 222-9500 Fax (505) 222-9510
www.env.nm.gov

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

February 3, 2016

William L. Watson, P.E.
City Engineer/DPW
City of Aztec
303 S. Ash Street
Aztec, New Mexico 87410

**RE: Approval of Final Amended Environmental Information Document (EID) for the
City of Aztec Sewer Replacement (CWSRF 021).**

Mr. Watson:

The New Mexico Environment Department (NMED) Construction Programs Bureau (CPB) received the Final Amended EID prepared by SME Environmental Consultants on January 21, 2016. The document has been reviewed by NMED CPB and the EID is approved. CPB will be following up with an Amended Environmental Assessment (EA) in the next week.

Should you have any questions or comments, I can be reached at 505-222-9567 or e-mail at david.bishop@state.nm.us.

Sincerely,

David E. Bishop, P.E.
Project Engineer

cc: Nathan Kirker (SME, e-mail)
Jennifer Prada (NMED CPB, e-mail)
File

February 4, 2016

AMENDMENT to the FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS:

On June 18, 2014 the New Mexico Environment Department made final the Finding of No Significant Impact (FNSI) for the following proposed action:

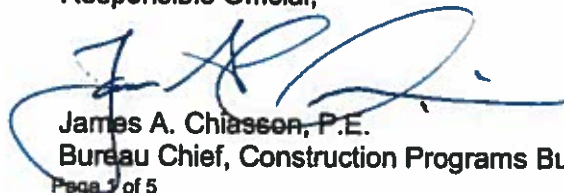
Construction of Sewer Interceptor Line
City of Aztec Located in
San Juan County, New Mexico
CWSRF Project Number: CWSRF 021
Estimated Project Cost: \$5,050,000

Since that final determination, the previous alignment along approximately 1,700 feet of the western end of the project has been revised. The previous alignment along the western end of the project went east on Western Drive for approximately 650 feet, then turned south through an easement obtained by the City for approximately 350 feet before meeting up with the existing 15-inch diameter clay sanitary sewer line corridor in a northwesterly direction along the north side of the Elledge Ditch until the project termination just north of NM 516. The new proposed alignment goes east on Western Drive for approximately 1,700 feet, then continues east through an easement obtained by the City before meeting up with the existing 15-inch diameter clay sanitary sewer line corridor. From that point the new proposed alignment follows the same proposed alignment to the north until the project termination just north of NM 516.

The environmental review process, which is documented by the enclosed Amended Environmental Assessment, indicates that no potential significant adverse environmental impacts will result from the proposed action. The project individually, cumulatively over time, or in conjunction with other actions will not have a significant adverse effect on the quality of the environment. On the basis of the environmental review determination that there are no predicted or cumulative significant adverse impacts associated with the project, I have determined that the project is not a major Federal action significantly affecting the quality of the human environment, and that preparation of an Environmental Impact Statement is not necessary. My preliminary decision is based upon the enclosed Amended Environmental Assessment, careful review of the amended Environmental Information Document prepared for the project, and other supporting data which are on file in the office listed below and available for public review upon request. Therefore, I am issuing this Amendment to the Finding of No Significant Impact pertaining to the project.

Comments supporting or disagreeing with my preliminary decision may be submitted for consideration to the attention of David Bishop, Project Manager of the New Mexico Environment Department Construction Programs Bureau 121 Tijeras Avenue NE, Suite 1000, Albuquerque, New Mexico 87102. After evaluating any comments received, the Construction Programs Bureau will make a final decision. No administrative action will be taken on this preliminary decision for at least 30 calendar days after release of this Amendment to the Finding of No Significant Impact. The amended finding will then become final after the 30-day comment period expires if no new significant information is provided to alter this finding.

Responsible Official,



James A. Chiasson, P.E.
Bureau Chief, Construction Programs Bureau

cc: William Watson, P.E.
City Engineer/DPW

Ryan Flynn, Cabinet Secretary
New Mexico Environment Department

Enclosure: Amended Environmental Assessment

AMENDED ENVIRONMENTAL ASSESSMENT
CONSTRUCTION OF SANITARY SEWER INTERCEPTOR LINE
For
City of Aztec
Located in
San Juan COUNTY, NEW MEXICO

CWSRF Project Number: CWSRF 021

BACKGROUND

On June 18, 2014 the New Mexico Environment Department made final the Finding of No Significant Impact (FNSI) for the following proposed action: **Construction of Sewer Interceptor Line, City of Aztec Located in San Juan County, New Mexico, CWSRF Project Number: CWSRF 021.**

Since the final determination the previous alignment along approximately 1,700 feet of the western end of the project has been revised. The previous alignment along the western end of the project went east on Western Drive for approximately 650 feet, then turned south through an easement obtained by the City for approximately 350 feet before meeting up with the existing 15-inch diameter clay sanitary sewer line corridor in a northwesterly direction along the north side of the Elledge Ditch until the project termination just north of NM 516. See Figure 1 and Figure 2 for the previous alignment. The new proposed alignment goes east on Western Drive for approximately 1,700 feet, then continues east through an easement obtained by the City before meeting up with the existing 15-inch diameter clay sanitary sewer line corridor. From that point the new proposed alignment follows the same proposed alignment to the north until the project termination just north of NM 516. See Figure 3 and Figure 4 for the new proposed alignment.

IMPACTS OF THE PROPOSED PROJECT

The proposed project was analyzed to identify potential short-term, long-term, and cumulative impacts on the environment. Factors that were considered include the probability of impact occurrence, magnitude of any occurrence, if any predicted occurrence is determined to be reversible/irreversible, direct/indirect or one-time/cumulative, the proposed action's conformity to legal mandates, and the social distribution of risks and benefits. The proposed project should not have a substantial negative impact upon current land uses or land values, nor should it have a substantial impact upon the values of surrounding land holdings. The proposed action is expected to have energy requirements typical of other construction projects of similar scope, size and duration, and will be conducted in accordance with the requirements of all local and state regulations.

The majority of the impacts associated with the proposed project will be short-term and temporary due to actual construction activities, and will cease immediately upon completion of construction work in any particular area. There are no significant adverse environmental impacts associated with the proposed action that cannot be reduced to acceptable levels. The only irretrievable resources committed to this project are labor, machinery wear, materials, funds spent, and energy consumed during construction. The potential short and long-term, direct, indirect and cumulative impacts resulting from the proposed action are identified and discussed below.

1. Biological Resources Including Threatened and Endangered Species: The proposed project

was coordinated with the United States Fish and Wildlife Service and the New Mexico Department of Game and Fish (NMDGF) concerning the protection of listed animal and plant species and their designated critical habitat. Since these protected resources are not known to occur in the project area, federally listed species or their habitats will not be adversely impacted by construction of the project.

However, all work should be done outside of the migratory bird nesting season from April 15 through August 15, unless there is a biological monitor on site to ensure no nests are removed. To minimize trapping of wildlife during trenching operations, trenching and backfilling will be conducted concurrently. A minimal amount of trenching will be kept open overnight, and escape ramps will be provided for wildlife. Escape ramps should be constructed at least every 300 feet and could consist of lateral trenches or planks not to exceed 45 degrees in pitch. Trenches should be inspected for wildlife prior to backfilling.

Additionally, NMDOT requires a preconstruction nesting bird survey from March 1 to September 30. If construction within NMDOT right of way is to commence on March 1 or after August 15, a preconstruction nesting bird survey will be performed no more than 2 weeks prior to beginning construction.

Re-vegetation of the easement will reduce direct effects to vegetation by replacing removed vegetation and will reduce indirect effects to wildlife by replacing forage and cover. Following completion of construction activities, disturbed areas will be reseeded with native vegetation to minimize erosion.

In order to reduce the potential for spreading noxious weeds to the project area, noxious weeds identified within the NMDOT right of way should be sprayed with herbicide prior to start of construction activities.

2. Cultural/Historic Resources: The proposed project was coordinated with the State Historic Preservation Officer (SHPO) as required under Section 106 of the National Historic Preservation Act (NHPA) concerning the protection of sensitive resources with archaeological, historical, architectural, or cultural significance. Since these protected resources are not known to occur in the project area, cultural or historic resources will not be adversely impacted by construction of the project. A good faith effort of tribal consultation indicates that no impacts will occur.

However, should materials, artifacts or properties of a potentially historic or archaeological nature be unearthed during construction, work will stop immediately in that general vicinity, and the funding recipient will immediately notify the SHPO of the discovery. Any such resources discovered will be evaluated in accordance with the requirements of 36 CFR Part 800. Appropriate mitigation measures will be developed and implemented, as needed, in consultation with the SHPO before construction is allowed to continue.

During the process of conducting the environmental review and preparing this Amended Environmental Assessment for the project, coordination has been conducted with the following agencies, New Mexico State Historic Preservation Office, US Fish and Wildlife Services and the New Mexico Department of Transportation, to solicit and incorporate their initial review and comments, if any. Other interested parties may request a copy of the Amended Environmental Assessment in writing from the New Mexico Environment Department Construction Programs Bureau, 121 Tijeras Avenue NE, Suite 1000, Albuquerque, NM 87102.

References

1. Design Memorandum, Huitt-Zollars, October 2012
2. Final Amended Environmental Information Document, Aztec Sewer Outfall Line, SME Environmental Consultants, January 2016

RECOMMENDATION

Based upon completion of this Amended Environmental Assessment, and a detailed review of the supporting information contained in the Final Environmental Information Document, the proposed project is considered to be cost-effective and environmentally sound. Therefore, it is recommended that an Amended to Finding of No Significant Impact be issued for this project.

PROJECT LOCATION:

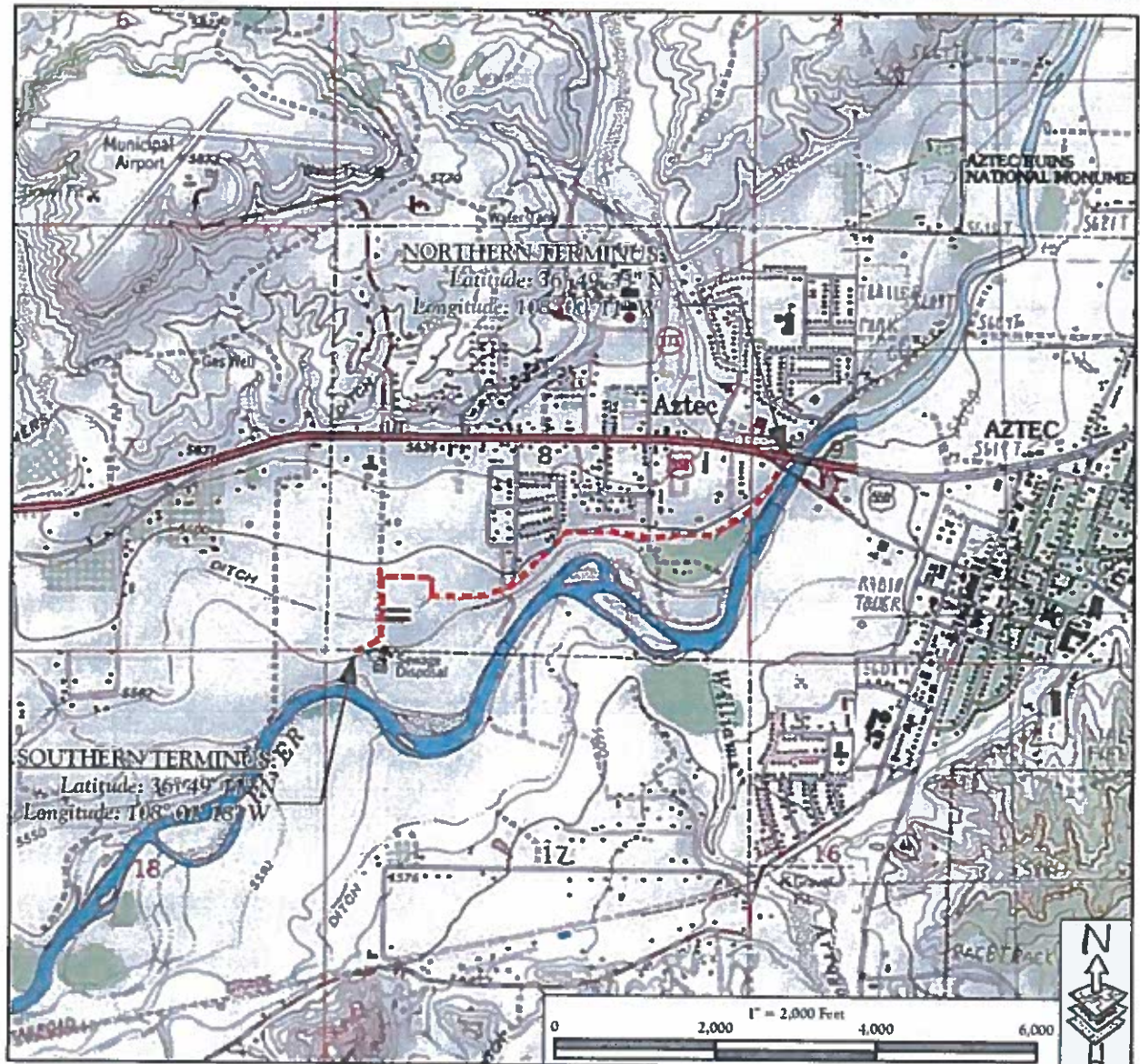
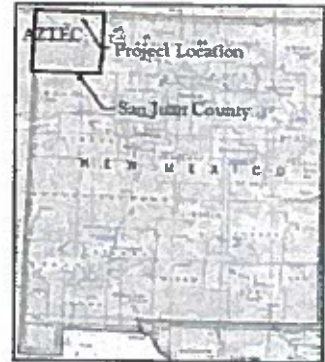
Sections 8, 9, and 17
Township 30 North, Range 11 West
New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-8595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society

PROJECT LOCATION:

Township 30 North, Range 11 West,
Sections 8, 9, and 17,
NMPM, San Juan County, New Mexico.

Western Terminus:

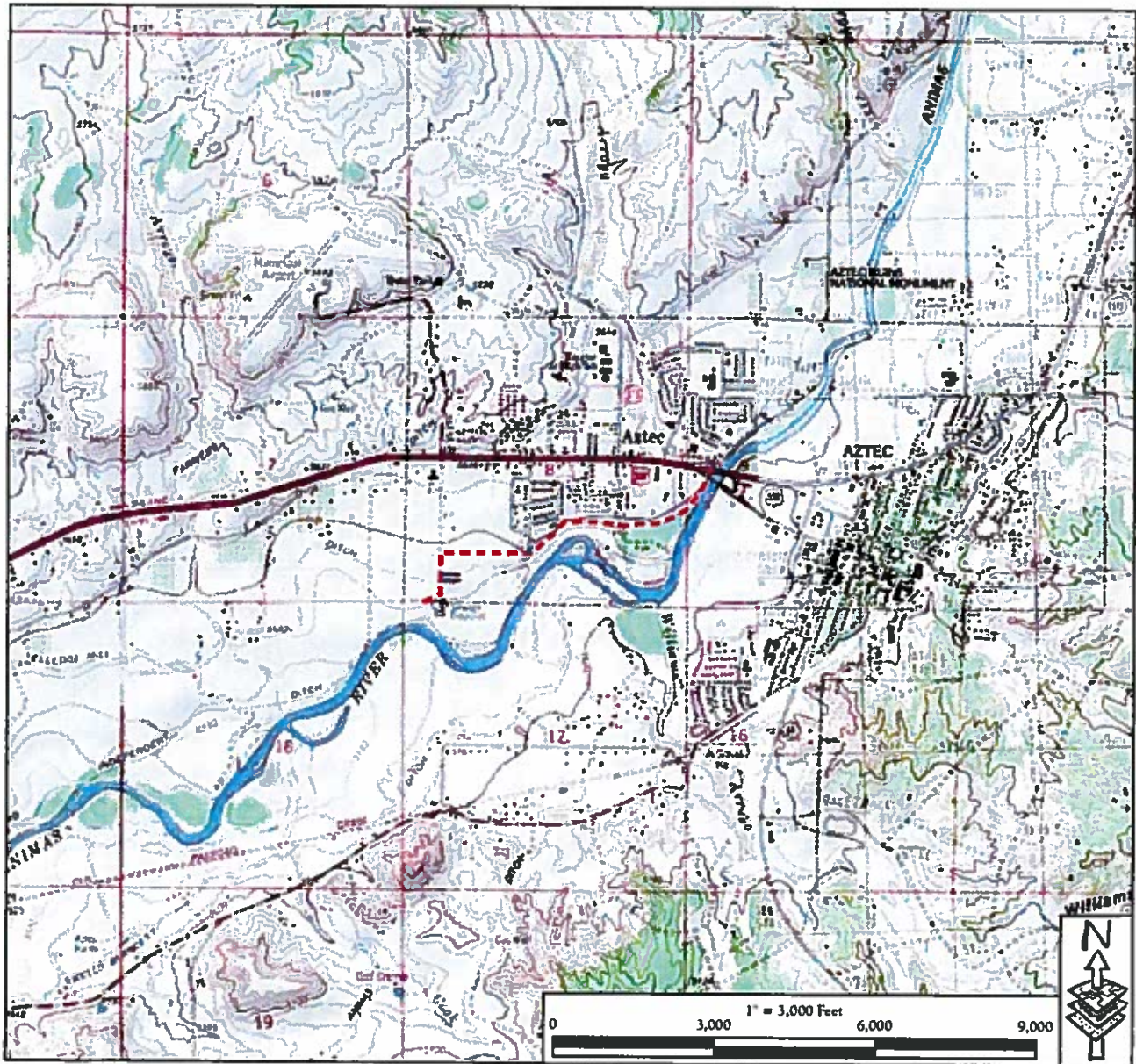
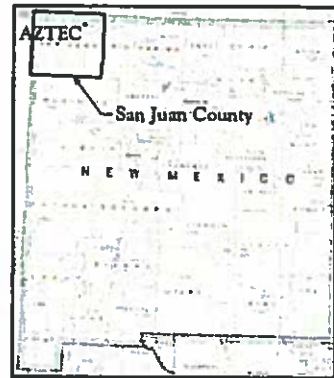
Lat: 36.8195° N Long: 108.0217° W

Eastern Terminus:

Lat: 36.8267° N Long: 108.0030° W

Legend

----- Proposed Sewer Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 258-9595

PROJECT LOCATION MAP

AZTEC SEWER IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

FIGURE 3

Source: Aztec & Flora Vista, New Mexico
7.5' USGS Quadrangles
Copyright: © 2010 National Geographic Society



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

AERIAL SITE MAP

**AZTEC SEWER IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT**

FIGURE 4

Source: Esri, DigitGlobe, GeoEye, Earthstar,
Getmapping, CNES/Airbus, USDA, USGS, AEX,
Aerogrid, IGN, IGP, swissmap.

**FINAL
ENVIRONMENTAL INFORMATION DOCUMENT**

**Aztec Sewer Outfall Line
for
The City of Aztec, New Mexico**



Prepared for:

**The New Mexico Environment Department
Construction Programs Bureau**



On behalf of:

The City of Aztec



JANUARY 2016

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ENVIRONMENTAL INFORMATION DOCUMENT FOR CITY OF AZTEC AZTEC SEWER OUTFALL LINE

1. INTRODUCTION

1.1 The Proposal

The City of Aztec (City) proposes to install a new sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico (Figure 1). The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from Aztec Blvd. west to South Oliver Ave. The proposed alignment along the existing easement roughly follows the Elledge Mill Ditch north of the Animas River (Figure 2). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Ave. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Northwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 2). Project plan drawings are provided as Appendix A. The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on municipal (City and County) and privately owned lands and the portion at Aztec Blvd. (NM 516) would be within New Mexico Department of Transportation (NMDOT) right-of-way (ROW).

This report addresses the Environmental Information Document (EID) portion of the scope of work pursuant to the New Mexico Environment Department - Construction Programs Bureau (NMED-CPB) State Environmental Review Process document dated 1/2/08. The EID is prepared in part to comply with the requirements of the National Environmental Policy Act (NEPA). To fulfill the requirements of NEPA, NMED-CPB is required to prepare a written assessment that describes the affected environment and environmental consequences of a proposed project; reasonable or practicable alternatives to the proposed project; and any mitigation measures necessary to avoid or minimize adverse environmental effects.

1.2 Purpose and Need

The purpose for the proposed action is to replace an existing line that is nearing the end of its useful lifespan. The current sewer outfall line serves as the main collector for 100% of the City of Aztec's wastewater stream. The need for the action has arisen as the existing line has deteriorated and clogged with sand.

The existing 15" clay tile sewer line was installed in the 1950's and has the following full flowing capacities:

Table 1: Existing Sewer Outfall Line Capacities and Flow Rates

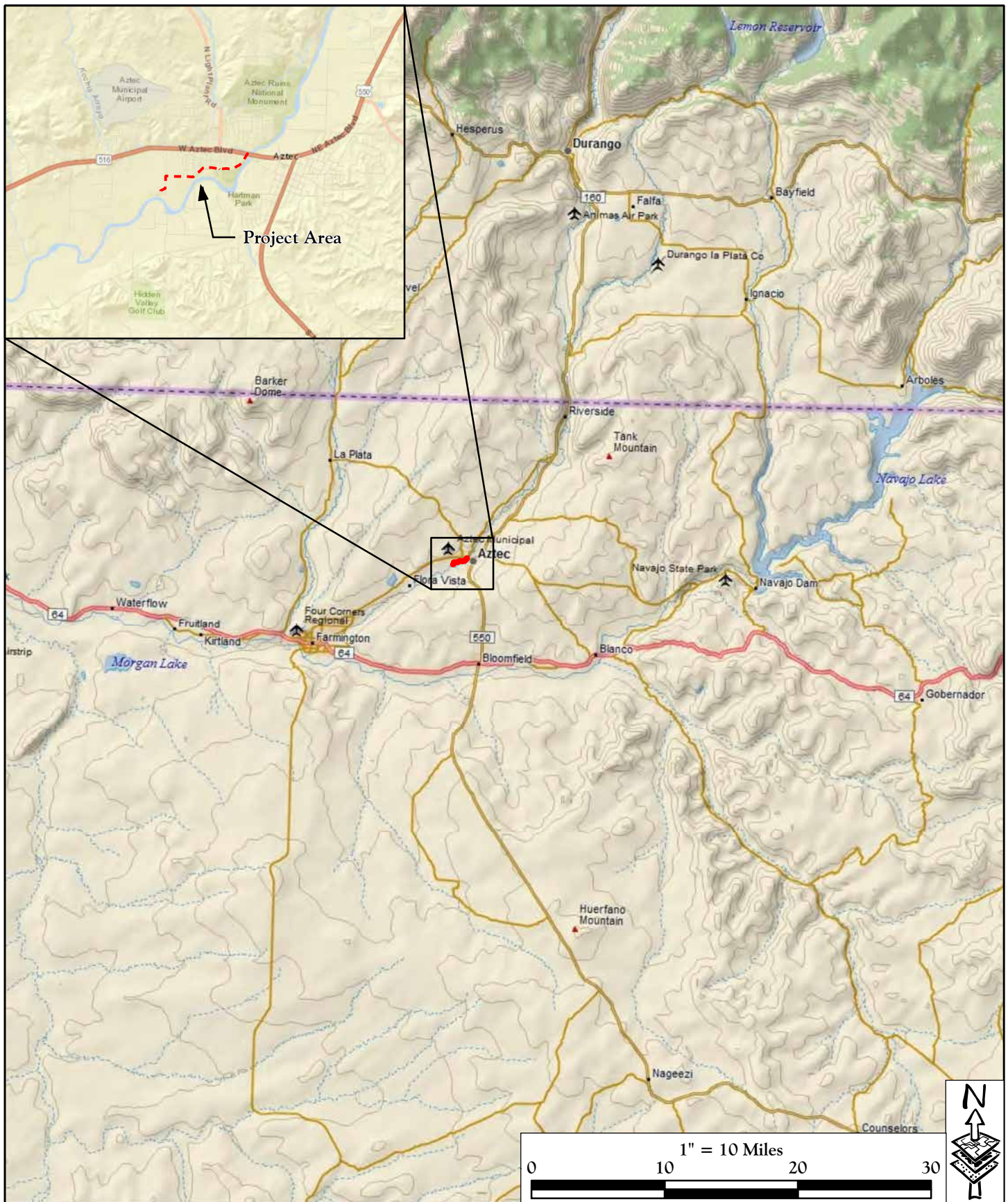
MH#	STA.	LENGTH	INVERT	SLOPE	CAPACITY (cfs)	CAPACITY (GPM)	CAPACITY (MGD)
1	2+82.93		5581.14				
		326.47		0.4686%	6.06	2,719.73	3.92
2	6+09.4		5582.67				
		379.46		0.1400%	3.31	1,485.53	2.14
3	9+88.86		5583.03				
		379.47		0.1400%	3.31	1,485.53	2.14
4	13+68.33		5583.77				
		631.75		0.0900%	2.66	1,193.81	1.72
5	20+00.08		5584.3				
		497.8		0.1100%	2.94	1,319.47	1.90
6	32+29.03		5584.83				
		489.09		0.1400%	3.31	1,485.53	2.14
7	37+14.12		5584.76				
		156.16		0.8300%	8.06	3,617.33	5.21
8	38+70.28		5586.05				
		311.88		0.8200%	8.05	3,612.84	5.20
9	41+82.16		5586.31				
		537.97		0.0670%	2.29	1,027.75	1.48
10	47+20.00		5586.67				
		423.85		0.2600%	4.51	2,024.09	2.91
11	51+87.43		5587.77				
		76.18		0.4000%	0.00	0.00	0.00
12	52+63.62		5587.74				
		387.92		0.1100%	2.94	1,319.47	1.90
13	56+51.53		5588.17				
		364.73		0.6000%	6.86	3,078.77	4.43
14	60+16.26		5588.39				
		255.4		0.6300%	7.03	3,155.06	4.54
15	62+71.58		5588.55				
		317.01		0.4500%	5.94	2,665.87	3.84
16	65+88.67		5589.98				
		334.6		0.3400%	5.16	2,315.81	3.33


17	69+23.27		5591.11				
		303.98		0.2300%	4.25	1,907.40	2.75
18	71+58.97		5591.82				
		219.35		0.1000%	2.80	1,256.64	1.81
19	73+58.32		5592.05				

The City's wastewater treatment plant has a designed and permitted capacity of 1.2 million gallons per day which is roughly 1.86 cfs. A peak factor of 3.0 was selected for the project due to the type of facilities contributing to the system and the nature of the flow characteristics. A straight grade from the beginning of the project to the point of connection to the existing system plus providing a 0.1 foot manhole drop yields an overall interceptor slope of 0.001244 ft/ft. The smallest interceptor capable of meeting the project's design flow rates at this slope is a 24-inch diameter pipe which matches the largest capacity of a single segment of the existing line. The eastern section of the proposed line will not have more than 40% of the flow at the City's waste water treatment plant; therefore, an 18-inch interceptor has been selected for this section. Below is a summary of the 24-inch and 18-inch interceptor depths and fluid velocities with the varying flow rates.

Table 2: Proposed Sewer Outfall Line Designed Depths and Flow Rates

Pipe Size (in)	Pipe Slope (%)	Flow (cfs)	Peak Factor (-)	Flow (gpd)	Pipe Depth (ft)	Velocity (fps)
24	0.1244	5.57	3.0	3,600,000	10.4	3.4
24	0.1244	1.86	1.0	1,200,000	0.57	2.5
24	0.1244	0.93	0.5	600,000	0.4	2.04
18	0.1244	2.28	3.0	1,440,000	0.95	2.28
18	0.1244	0.74	1	480,000	0.74	1.76
18	0.1244	0.37	0.5	240,000	0.37	1.55



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	ROAD/VICINITY MAP	FIGURE 1
	AZTEC SEWER IMPROVEMENTS ENVIRONMENTAL ASSESSMENT	Sources: ESRI, DeLorme, AND, Tele Atlas, First American, ESRI Japan, UNEP/WCMC, USGS, METI, ESRI Hong Kong, ESRI Thailand, Procalcuto Prosis

PROJECT LOCATION:

Township 30 North, Range 11 West,
Sections 8, 9, and 17,
NMPM, San Juan County, New Mexico.

Western Terminus:

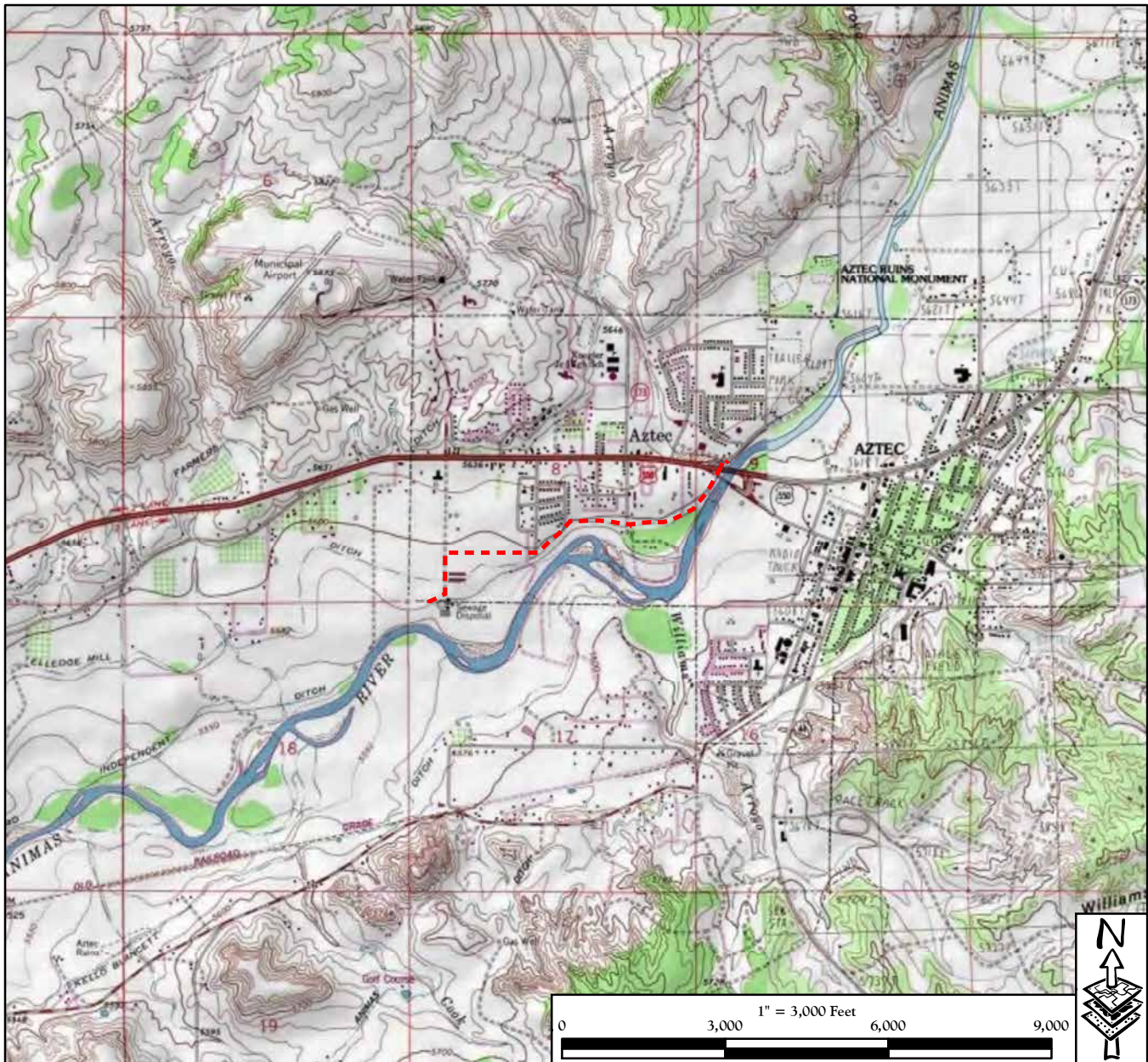
Lat: 36.8195° N Long: 108.0217° W

Eastern Terminus:

Lat: 36.8267° N Long: 108.0030° W

Legend

----- Proposed Sewer Line



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Durango, Colorado 81301
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PROJECT LOCATION MAP

AZTEC SEWER IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

FIGURE 2

Source: Aztec & Flora Vista, New Mexico
7.5' USGS Quadrangles
Copyright: © 2010 National Geographic Society



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	AERIAL SITE MAP	FIGURE 3
	AZTEC SEWER IMPROVEMENTS ENVIRONMENTAL ASSESSMENT	Source: Esri, DigitalGlobe, GeoEye, Earthstar, Getmapping, CNES/Airbus, USDA, USGS, AEX, Aerogrid, IGN, IGP, swissmap.

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Alternative A - No Action

Under this alternative, the proposed Aztec Sewer Outfall Line would not be constructed. The existing sewer line would operate at its current limitations; capacity within 100% of the City's sewer system would remain at the 1950's design values. The risk of a failure of the aged sewer line would remain at its current level. The no action alternative would not address the looming threat to the public's health and safety, or the financial security of the City, posed by the aging outfall line. The renovated Aztec Wastewater Treatment Plant would not operate to meet the need for which it was constructed. No mitigation measures would be required for the no action alternative.

2.2 Alternative B - Proposed Action

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. The City proposes to replace the existing line with a new sewer outfall line comprised of approximately 4,722 feet of 24-inch diameter high density polyethylene (HDPE) sewer line and 2,415 feet of 18-inch HDPE sewer line primarily along an existing 60-foot wide sewer line easement (Figure 3). The proposed sewer line would leave the existing easement for approximately 2,015 feet at the western end of the proposed alignment in order to avoid buildings that overlie the existing easement. The re-routed alignment would follow existing City easement within paved City roadways. Other minor deviations from the original alignment are proposed within the existing easement to improve construction and drain slope.

Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching, laying of pipeline, testing, and backfilling the pipeline. By-pass pumping would be employed as needed to maintain City sewer services. The existing sewer line would be left in place. The sewer easement is approximately 60 feet wide, and the total surface area for the proposed easement would be approximately 9.83 acres.

In conjunction with the sewer line installation, a new water line will be constructed immediately adjacent to the sewer line from the treatment plant east approximately 3,700 feet. The water line would be 6 inches in diameter. Also, a 40-foot long six-foot by 8-foot concrete box culvert would be installed within S. Oliver Ave. in the project area where S. Oliver Ave. crosses over the Elledge Mill Ditch. The replacement is intended to address the poor condition of the deteriorating existing 5-foot diameter metal pipe. In addition, the increased volume of the proposed culvert would improve ditch flow and reduce debris constriction at S. Oliver Ave. The construction would occur within the City's sewer easement and road ROW when the ditch is turned off (outside of the irrigation season). The proposed sewer line would be installed underneath the new culvert.

Refer to the plan drawings, on file with the City of Aztec Public Works Department, for a more detailed description of the pipeline route and specific design features associated with the proposed action. Sheet C301 of the plans is provided in Appendix A.

2.3 Alternatives Considered but not Analyzed in Detail

Alternatives to the proposed action are developed to explore different ways to accomplish the purpose and need while responding to potential issues related to the proposed action. Alternatives to the proposed action were considered. As originally proposed, the route of the sewer line was planned to follow the existing easement for the entire length. Since the installation of the original sewer line, buildings at 600 S Oliver Ave. (A-1 Mini Storage in Aztec) have been constructed over the portion of the easement that crosses this parcel. The City determined that it would be easier and safer to realign 800 feet of the line so that it would bypass the 600 S Oliver Ave. parcel. The revised route would have gone north of the 600 S Oliver Ave. parcel through a parcel purchased by the City to Western Dr., west down Western Dr., then south on S Oliver Ave. to rejoin the existing easement. After further consideration, the City decided to re-route additional alignment such that the new line would follow the entire length of Western Dr. as currently proposed. The original route following the existing easement is included in Figure 3 below.

The City also considered a number of alternative routes for the outfall line replacement outside of the existing sewer easement. One alternative would be to re-route the line from the Chaco St./Aztec Blvd. intersection west along Aztec Blvd. to S. Oliver Ave., and then south to the existing Wastewater Treatment Plant. This alternative would require multiple lift stations in order to elevate sewage entering the system at the eastern terminus to the elevation of Aztec Blvd. and to elevate sewage from the neighborhoods south of Aztec Blvd. north, and uphill, to the alternate route. This alternative would require substantial costs and surface disturbance. Each lift station would add an estimated 30% to the initial cost of the action as currently proposed. On top of these additional costs, an unspecified additional long-term cost would include the regular maintenance and operation of these lift stations. Lift stations in the neighborhoods south of Aztec Blvd. would also need a pressurized line to be installed connecting the lift station to the outfall line at Aztec Blvd. This would result in a significant increase in surface disturbance and costs over the proposed action.

Alternate routes that would fall in between the existing easement and Aztec Blvd. would be difficult to construct as there are no existing rights-of-way or streets that transect the neighborhoods in an east-west orientation. Developing an alignment through these neighborhoods would likely be costly and controversial, and may require condemning private property.

The City also explored the option of developing a new alignment along City owned property south of the Elledge Mill Ditch through the City's Riverside Park. This alternative alignment would re-align the easternmost portion of the proposed route from the Chaco St./Aztec Blvd. intersection west to Lightplant Rd. and the entrance to Riverside Park. This alignment would avoid steep hillsides on private property along this portion of the existing easement. Since the installation of the original outfall line, private property owners have backfilled over the existing sewer line easement, burying the line up to 17 feet below the grade of the backfill. Realigning this section would avoid construction complexities in this section, and would simplify future maintenance of the line. However, this route would align the outfall line to a low topographical position within the Animas River floodplain. The low topographical position would reduce the slope of this section below 0.00084 and flow velocity would be below the minimum scour

velocity of 2 feet per second. Construction of this portion of the line would be cost prohibitive as it would require the installation of a lift station to maintain a sufficient flow velocity and grade. In addition, the lift station and all manhole covers would need to be elevated above the flood hazard zone in order to reduce the risk of contaminating floodwater with raw sewage and to maintain proper functioning of the system. This alternate route would also complicate maintenance if work was required during river flood stages.

Lastly, the City considered the use of Cast in Place Pipe (CIPP) in order to shore-up the existing outfall line, thereby reducing the risk that the line will fail. This technology involves coating the inside of the existing pipe with a substance that hardens in place to form a structurally sound pipe within the existing pipe. This alternative would not meet the stated purpose and need of improving the flow of the existing pipe. This alternative would nominally reduce the already restrictive flow and poor grade of the exiting line, rather than improve it.

3. AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES

This section describes the environment that would be affected by implementation of the proposed action and the effects of the proposed action on those resources. Aspects of the affected environment described in this section focus on the relevant major resources or issues. Only those resources of the environment that have the potential to be affected by the proposed action are described; coastal resources and wilderness areas, for example, will not be discussed as they do not occur in or near the project area. Field resource investigations of the proposed sewer line were conducted on December 10 and 11 of 2009, August 29, 2012, September 18, 2014, March 11, 2015, and December 4, 2015 by specialists from SME Environmental, Inc.

3.1 Environmental Setting

The proposed action is located within the San Juan Basin of northwestern New Mexico. The proposed alignment follows the edge of a terrace above the north bank of the Animas River in the City of Aztec. The alignment would begin near the intersection of W. Chaco St. and NM Highway 516 where the roads cross the Animas River and would terminate at the Aztec Wastewater Treatment Plant at the southern end of S. Oliver Ave. The topography of the project area is that of an alluvial valley terrace. The slopes within the project area are generally low (3-8%) as the project follows an existing easement; however the project does traverse the steep (up to 70% slope) sides of the valley terrace in many places. Expanding on the existing easement in these areas would temporarily result in larger cuts and fill material in order to create a level working surface for construction and installation of the line.

Aztec, New Mexico was originally settled by Puebloan Indians in the 13th century. The ruined village they left behind on the banks of the Animas River is an outlier of the Chacoan civilization that once extended from northern Mexico into southern Utah. Today Aztec is a town of nearly 7,000 people with an historic town center. It is the seat of San Juan County government and home to the Aztec Ruins National Monument.

The climate of the Aztec area is somewhat dry and mild with an average annual rainfall of 10 inches and an average annual snowfall of 15 inches. January temperatures average 28 degrees Fahrenheit, July averages 74 degrees Fahrenheit, and the overall annual average temperature is 51 degrees (WRCC 2009).

According to U.S. Census Bureau data (<http://factfinder.census.gov>), the population of San Juan County was 113,801 in 2000 and was 130,044 in 2010, a 14% increase. The population of the city of Aztec rose from 6,378 in 2000 to 6,763 in 2010, an increase of 6%.

3.2 Land Use

3.2.1 General Land Use

Approximately half of the proposed easement, primarily the mid-section, passes through or is immediately adjacent to residential areas. Typical lot sizes average about 0.2 acres. One large lot zoned as Mobile Home District is undeveloped as are two adjoining Multiple Family Dwelling lots. The east end of the easement primarily crosses commercial lots, but lies close to,

and crosses into, a large agricultural lot that has been developed as an Aztec City Park know as Riverside Park. The western end of the easement primarily crosses commercial and municipal maintenance lots.

Table 3: City of Aztec Zoning Districts within the Proposed Project Area

Zoning District	Brief Description	No. of Units Crossed by Easement	Percent of Project Area
C-2 General Commercial and Wholesale	Permits the uses specified under the C-1 District [mixed use neighborhood and “daily needs” commercial district - central business district], plus commercial activities of both retail and wholesale nature, designed to serve the community or tourists. This district includes those uses normally adjacent to a central business district, and of a magnitude not normally compatible with residential areas. Some minor industrial usage not associated with objectionable noise and activities are permitted.	6	24%
Unclassified	Utility and road rights-of-way, no zoning designated	N/A	22%
PUD Planned Unit Development	This district provides suitable sites for uses, which are special because of infrequent occurrence, effect on surrounding property, safety hazard, or other reasons. A pre-requisite for a land tract to be considered under such land use district is that the parcel of land includes at least three (3) acres in area for commercial, residential, and public land uses or ten (10) acres for manufacturing and agriculture uses.	7	17%
MH Mobile Home District	Permits one mobile home and normal residential accessory uses, but not another dwelling in each lot, or lot of record provided setback requirements could be met.	1	12%
A-1 Agricultural or Rural	Permits uses customarily conducted in an agricultural or rural area and is further controlled in that one family or multiple-family dwellings are permitted only on large lots thereby maintaining a low density of population.	2	8%
R-1 Single Family Dwelling	Permits single-family residential development, certain structures and land uses required to serve governmental, educational, non-commercial recreation, public utility installations, and other compatible public needs.	6	7%
R-2 Multiple Family Dwelling	Permits all uses permitted in the R-1 district, multi-family dwellings, apartments, condominiums, and town houses.	2	6%
O-1 Office and Institutional	Permits R-1 and R-2 uses plus offices, hotels, institutional, and service uses that are compatible with high-density residential areas.	1	3%

Aztec City Code, Chapter 26

No homes or businesses would be directly affected by the proposed action. The proposed sewer line would follow an existing easement and would avoid any residential or commercial structures. One mobile home near the mid-section of the alignment was directly over the existing outfall line. The mobile home was located within the City’s existing sewer easement. The mobile home has since been moved, and the proposed new line would have no impact on

this or any other homes. No residents would be displaced as a result of the proposed action. The character of existing residential areas would remain essentially unchanged.

3.2.2 Growth and Population Trends

According to U.S. Census Bureau data (<http://factfinder.census.gov>), the population of Aztec in 2010 was 6,763 persons, a 6% increase from the 2000 Census. If the population of Aztec maintained that rate of growth, the current population of Aztec may be around 6,966 persons. Figure 1 below charts Census Bureau population data from the year 1950, the first year that data was provided for the City, to 2010, the last census year. The dramatic fluctuations in population are likely a result of oil and gas exploration and production booms, and subsequent busts, which began in the mid 1950's, roughly the same time at which the existing City sewer outfall line was installed.

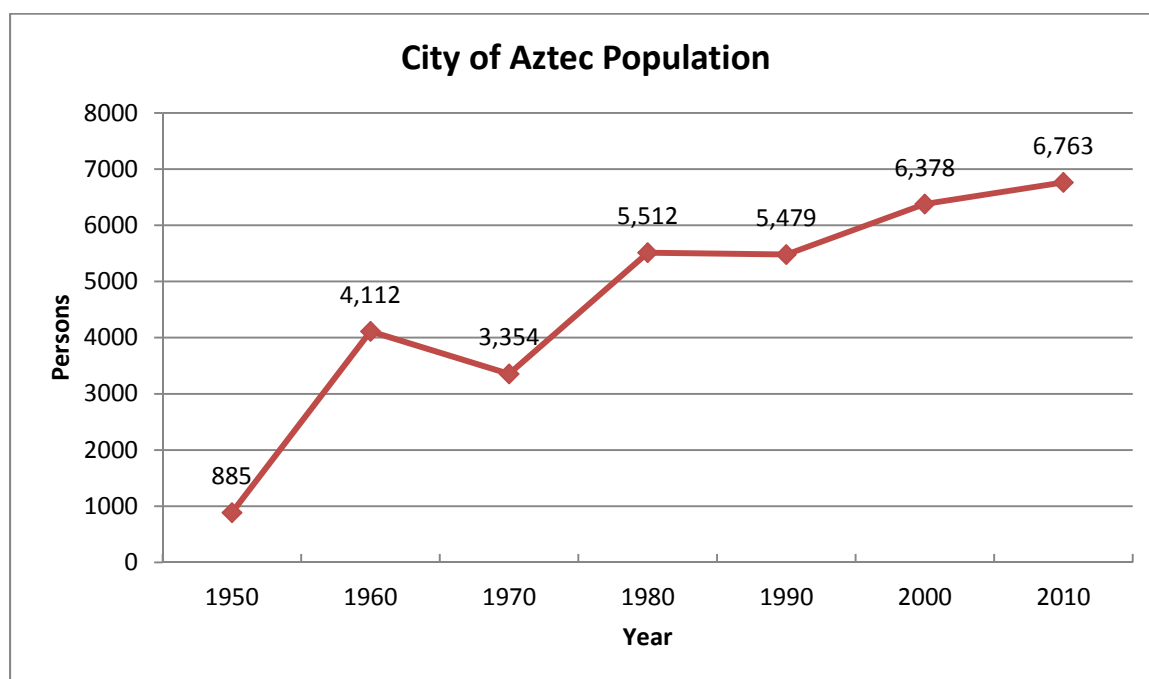


Figure 4: Population of the City of Aztec from the years 1950 to 2010 (U.S. Census Bureau data).

The proposed project is expected to accommodate anticipated residential growth within the northern portion of the City since the wastewater collection system capacity would be increased. Not installing the line may slow growth within the City.

3.2.3 Important Farmland

All of the soil units within the project area are classified by the United States Department of Agriculture, Natural Resource Conservation Service (NRCS) as potential farmlands of statewide importance (USDA 2007b). These lands must have a dependable supply of irrigation water to meet crop needs, and are limited to farmlands currently in production. The proposed action is located in an urban/developed area; no farmlands would be crossed by the proposed sewer line easement (J.X. Montoya - NRCS, personal communication 2012). As such, the proposed action would have no effect on important farmlands.

3.2.4 Soils

The NRCS (formerly the Soil Conservation Service) has surveyed the soils in the proposed project area. Complete soil information is available online at the NRCS's Web Soil Survey website (USDA 2007b). Soils of the proposed action are described by the NRCS as follows:

Table 4: Soil Units that Occur in the Proposed Project Area

Soil Unit	Brief Description	Hydric Soils	Percent of Project Area
Fruitland loam, 5-8% slopes	A well drained soil found on alluvial fans and stream terraces at elevations ranging from 4,800 ft to 6,000 ft that was formed from slope alluvium derived from sandstone and shale with a moderate available water capacity and composed of loam and fine sandy loam.	Does not meet hydric criteria.	55%
Turley clay loam, 1-3% slopes	A well drained soil found on alluvial fans at elevations ranging from 4,800 ft to 6,000 ft formed from fan alluvium derived from sandstone and shale with a high available water capacity composed of clay loam.	Does not meet hydric criteria.	28%
Fruitland sandy loam, 2-5% slopes	A well drained soil found on alluvial fans and stream terraces at elevations ranging from 4,800 ft to 6,400 ft that was formed from alluvium derived from sandstone and shale with a moderate available water capacity and composed of sandy loam.	Does not meet hydric criteria.	12%
Stumble loamy sand, 0-3% slopes	A somewhat excessively drained to well drained soil found on dunes and alluvial fans at elevations ranging from 4,800 ft to 6,400 ft formed from eolian deposits derived from sandstone and fan alluvium derived from sandstone and shale with a low to moderate available water capacity and composed of loamy sand, gravelly loamy sand, loam and fine sandy loam.	Does not meet hydric criteria.	3%
Walrees loam	A somewhat poorly drained soil found on floodplains at elevations ranging from 6,400 ft to 7,200 ft on 0-2% slopes formed from mixed alluvium with a moderate available water capacity formed from stratified gravelly sand.	Does not meet hydric criteria.	2%

USDA 2007b

The proposed action would result in no more than 9.83 acres of soil disturbance. Soils that would be disturbed would be structurally mixed, displaced and exposed to the elements of wind and water erosion. In some areas, these soils would also be compacted. Once disturbed, these soils can be subject to increased erosion, dependent upon storm events of water and/or wind. Disturbed areas, especially cut and fill slopes, would be susceptible to wind and water erosion until reseeding had been established (one to two growing seasons). The amount of soils that would be lost to erosion is unknown, however it is assumed that effects to soils would be low based on short slope lengths (project traverses the grade), paving over the installed line along S. Oliver Ave. and Western Dr., and mitigating measures. Effects would primarily be short-term until re-vegetation is established within reclamation areas.

3.2.1 Formally Classified Lands

No formally classified lands such as national parks, landmarks, historic sites, wilderness areas, wildlife refuges, wild and scenic rivers, grasslands, state parks, and Native American owned lands occur within the project area. No such lands would be affected by the proposed action.

3.3 Floodplains

A review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps indicates the northeastern 1,090 feet of the sewer easement fringes the edge of the Animas River 100-year floodplain (FEMA 2009). The sewer line alignment itself would be outside of the Animas River 100-year floodplain. In addition, the northeastern-most 260 feet of the alignment and easement cross the 100-year floodplain of Estes Arroyo, an intermittent drainage. The proposed action would not noticeably alter the topography of the project area, introduce aboveground structures beyond manholes, or otherwise affect the Animas River or Estes Arroyo floodplains.

3.4 Wetlands

SME staff delineated 1.30 acres of wetland and stream features within the utility easement boundary, which includes 0.30 acre of wet meadow/marsh wetland area (PEM), 0.39 acre of mixed willow/marsh area (PSS/PEM), and 0.60 acre of intermittent riverine streambed (RSB4). All 0.60 acre of RSB4, 0.28 acre of PEM, and 0.11 acre of PSS/PEM (total of 0.99 acre) are associated directly with the Elledge Mill Ditch. All 1.30 acres have been determined to be jurisdictional in nature, including the ditch and abutting wetland edges. SME has made this determination based on the presence of an intermittent hydrologic surface connection to the Animas River, which is a Traditionally Navigable Waterway (TNW). Wetlands communities within the easement are characterized by the dominant presence of coyote willow (*Salix exigua*), common reed (*Phragmites australis*), cattail (*Typha latifolia*), wire rush (*Juncus arcticus*), and unidentified thin-leaf sedge (*Carex* sp.; no flowers located) growing along the ditch edges. Also, a large (apx. 13 ac.) willow/cottonwood wetland complex exists abutting the south side of the easement just to the west of the Riverside Park.

The proposed project was coordinated with the United States Army Corps of Engineers (USACE) concerning the protection of jurisdictional wetlands and Waters of the United States (WOUS). Since these protected resources are known to occur in the project area, the project will require the issuance of a Section 404 permit prior to construction. The funding recipient must abide by all conditions of the permit to insure that wetlands and WOUS in the area will not be adversely impacted by construction of the project. Additionally, the applicant has consulted with the New Mexico Environment Department, Surface Water Quality Bureau (SWQB) to acquire Section 401 Water Quality Certification. The issuance of the Section 404 permit is contingent upon acquisition of Water Quality Certification.

3.5 Water Resources

3.5.1 Surface Water

Limited surficial and groundwater resources are available in northwest New Mexico due to the arid climate. Irrigation water for agriculture comes from the diversion of perennial streams and rivers. Outside of the river corridors, dry farming is nearly nonexistent.

The dominant surface water resource in the analysis area is the Animas River. The proposed sewer line approaches to within 100 feet of the north bank of the river. In addition, the proposed action roughly parallels the Elledge Mill Ditch, a seasonally operated irrigation ditch fed by the Animas River. Surface run-off in the project area would drain west primarily into the Elledge Mill Ditch, except at road crossings where run-off would follow roadside ditches towards the Animas River. The proposed easement would cross the irrigation ditch at S. Oliver Ave. at the western end of the proposed sewer line. This portion of the line would be constructed in conjunction with the installation of a new box culvert for the ditch to pass under S. Oliver Ave. Construction of the sewer and culvert in this area would be conducted during the period when the ditch is not flowing. The northeastern end of the alignment would cross Estes Arroyo, an intermittent wash approximately 20 feet wide. No other well defined surface water resources were identified within the project area.

A USACE CWA Section 404 Permit for the discharge of dredge and fill materials in waters of the United States will be required. As the Elledge Mill Ditch and Estes Arroyo display a significant nexus with the Animas River, they would be considered waters of the U.S. The City plans to acquire Section 404 authorization for crossing Estes Arroyo, crossing Elledge Mill Ditch at S. Oliver Ave., and any unavoidable activities that may occur within the banks of the ditch. In addition, the City must abide by all conditions issued with the Section 401 Water Quality Certification to insure that water quality in the area will not be adversely impacted by construction of the project. The City is currently working with USACE and SWQB to acquire authorization for the proposed action.

The U.S. Environmental Protection Agency (USEPA) requires National Pollutant Discharge Elimination System (NPDES) permit coverage for stormwater discharges from construction projects that will result in the disturbance of one or more acres of total land area. A Stormwater Pollution Prevention Plan (SWPPP) would be required under 40 CFR §122 as construction activities would result in a total land disturbance greater than 1 acre.

The disruption of project area soils and the increase of barren surface would result in augmented surface flows with associated increased sedimentation and total dissolved solids (TDS). Sedimentation, resulting from both wind and water erosion, could be realized down gradient of the proposed action. The quality and quantity of this surface sedimentation would be dependent upon wind and water events in relation to soil disturbance and the timing and success of reclamation and erosion control configurations.

Short term effects to the surface water quality and quantity are assumed to be low to moderate under the proposed action with mitigating measures. The linear area of disturbance associated with the proposed action is oriented along the gradient, thereby reducing the slope length of exposed soils, and therefore erosion potential.

3.5.2 Ground Water

Ground water supplies in northwest New Mexico are deep and limited. Most water supplies in the basin are obtained from valley fill deposits of Quaternary age along rivers, and some of the shallower Cretaceous sandstones bodies. The major ground water aquifer beneath the proposed project area is the Uinta-Animas aquifer. Formations within this aquifer are largely untested, although known to yield numerous stockponds and springs in the basin.

The continued aging of the existing sewer line represents the potential for accidental leakage of raw sewage to ground water aquifers, such as the local Uinta-Animas Aquifer, and shallow groundwater resources along the Animas River. The latent hazard of a sewer line failure would be reduced through the construction of the proposed sewer line. With mitigation, short and long term effects to ground water would be low for the proposed action.

3.6 Air Quality

Section 109 of the Clean Air Act (CAA) (42 U.S.C. 1857-18571, as amended by Public Law 91-604), requires that national primary and secondary ambient air quality standards be established. In New Mexico, the EPA has identified seven Air Quality Control Regions (AQCRs) and has approved, with some exceptions, New Mexico's plan for the attainment and maintenance of the national ambient air quality standards (NAAQS) in these interstate and intrastate regions. The State of New Mexico has also promulgated some ambient air quality standards that are more stringent than the NAAQS.

The City of Aztec is considered to be in attainment for all New Mexico and National Ambient Air Quality Standards. Activities associated with the proposed action have the potential for a temporary increase in dust and emissions from construction equipment. However, these increases are expected to be minimal due to the relatively short duration of the project (6 months) and since only typical construction equipment would be used. The project activities will meet local regulations regarding noise and dust control. No significant emissions are expected as part of project activities or during operation of the sewer line.

3.7 Biological Resources

3.7.1 Vegetation

The project area is located at the transition of the Animas River floodway and an abandoned floodway terrace. The floodway contains areas of native riparian communities characterized by the dominant presence of Fremont cottonwood (*Populus fremontii*), but the terrace slope, on which the study area is located, generally contains a transitional upland community characterized by the dominant presence of three leaf sumac (*Rhus trilobata*), Chinese elm (*Ulmus pumila*) Wood's rose (*Rosa woodsii*) and smooth brome (*Bromus inermis*). Two wetland areas also cross the study area. The eastern wetland area is a willow (*Salix*)/reed (*Phragmites*) dominated wetland community and a western wetland area is a cattail (*Typha*) dominated wetland community that also supports various wetland grasses and rushes including Torrey's rush (*Juncus torreyi*) and scratch grass (*Mulhenbergia asperifolia*). Additional primarily herbaceous narrow linear wetlands fringe the immediate edge of the Elledge Mill Ditch. The vegetation located within the easement is largely disturbed due to disturbance related to the original construction and ongoing maintenance activities on the existing sewer line, ditch and overhead utility lines.

Effects to vegetation would be low due to this existing disturbance and the linear nature of the disturbance.

Four State of New Mexico listed noxious weed species were observed within the project area. One Class A species, Canada thistle (*Cirsium arvense*); one Class B species, Russian knapweed (*Acroptilon repens*); and two Class C species, cheatgrass (*Bromus tectorum*) and Russian olive (*Elaeagnus angustifolia*) were observed.

3.7.1 Wildlife

Evidence of habitat utilization by wildlife in the analysis area was revealed through tracks, droppings, vocalizations, and visual identification of individuals. Tracks and scat of striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), and mule deer (*Odocoileus hemionus*) were observed along a trail following the south side of the Elledge Mill Ditch. A large number of deer (up to one dozen) and prairie dog burrows were observed in the study area. One bald eagle (*Haliaeetus leucocephalus*) was observed perched in a large cottonwood overarching the Animas River approximately 900 east of the project site, while a second bald eagle was observed flying west along the river corridor. A female northern harrier (*Circus cyaneus*) was observed flying low over meadow areas in the Animas River floodplain. Numerous Canada geese (*Branta canadensis*) were observed along the banks of the Animas River. A medium sized stick nest was observed in the top of a large cottonwood tree within 100 feet of the proposed alignment. The nest may be that of a red-tailed hawk (*Buteo jamaicensis*) or raven (*Corvus corax*). A complete list of wildlife inferred and observed during the on-site field survey is included in Attachment B of the Biological Assessment (Appendix C).

Effects on wildlife can result from direct habitat loss, noise, increased human activity, and habitat fragmentation. Some wildlife species react positively to certain construction activities, some negatively, and some show no reaction at all. Species would continue to inhabit the area or conversely move out of the area, and the populations may increase or decrease depending on the available adjacent forage and habitat present.

The project area would be re-vegetated during reclamation, but the species composition and percent cover may be different than the original vegetation. Since the vegetation removed would not necessarily be replaced with the same species, and in the same percentage, an alteration in habitat utilization could occur. Some burrowing animals may be killed or displaced, and their burrows destroyed during construction activities.

Moderate to high levels of noise would be generated in the immediate vicinity of construction activities. These effects would be temporary, lasting only the duration of construction activities. Displacement of animal species away from the ROW could occur.

Habitat fragmentation associated with the proposed action would be limited as the proposed sewer line follows an existing corridor along a developed residential/commercial area. As such, the habitat removed as a result of the proposed action is already fragmented. The proposed action would not significantly add to the existing habitat fragmentation. With implementation of proposed mitigation measures, wildlife effects are anticipated to be moderate in the short term and low in the long term for the proposed action.

3.7.1 Threatened & Endangered Species

According to the USFWS, there are 11 federally threatened, endangered, proposed, or candidate species with the potential for occurrence in San Juan County, New Mexico. One (1) of the 11 species, the southwestern willow flycatcher (*Empidonax traillii extimus*), has limited potential to occur in the proposed action area based upon evaluations of the species habitat requirements and field surveys. A determination that the project “may affect, not likely to adversely affect” the southwestern willow flycatcher was made based on the low level of effects and the low probability of southwestern willow flycatcher to occur in the action area. This determination was reached after informal consultation with the USFWS.

Of the nine (9) State of New Mexico threatened or endangered species with potential to occur in San Juan County, New Mexico, three (3) have the potential to occur in the project area: American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), and Spotted bat (*Euderma maculatum*). The proposed action would not directly affect habitat for state listed species; however, the proposed action would result in visual and auditory disturbances during construction. Effects to state listed species would be low and would not require additional mitigation measures beyond those described for wildlife and vegetation. See Appendix C, the Biological Assessment, for a more detailed analysis of effects to threatened and endangered species.

3.8 Archeological, Cultural, and Historic Resources

The proposed action is located within the archaeologically rich San Juan Basin of northwestern New Mexico. In general, the prehistory of the San Juan Basin can be divided into five major periods: Paleoindian (ca. 10000 B.C. to 5500 B.C.), Archaic (ca. 5500 B.C. to A.D. 400), Anasazi Basketmaker II-III (A.D. 1 to 700), Anasazi Pueblo I-IV (A.D. 700 to 1540), and the historic (A.D. 1540 to present), which includes Native American as well as later Hispanic and Euro-American cultural components. Detailed descriptions of these various periods and select phases are provided in the Bureau of Land Management Farmington Field Office Farmington Proposed Resource Management Plan/Final Environmental Impact Statement (BLM 2003).

The proposed action is located in the Animas watershed. According to data provided by the Museum of New Mexico Archaeological Records Management System (ARMS) on October 20, 2009, there are 1,203 sites within the watershed with at least 1,312 temporal/cultural components on record. The following percentages were calculated using Table 2-2 from the 2002 BLM-FFO Cultural Resources Technical Report, which obtained data from ARMS in 2001. Anasazi cultural components are most represented (55%) followed by Navajo (18%), historic Hispanic or Euro-American (7%), and Archaic (5%). The remaining 15% are of unknown age or cultural affiliation. Most of those are likely Native American (Anasazi and Navajo).

A Class III cultural resource inventory has been completed for the proposed project. The inventory was conducted by El Morro CRM under the provision and standards of 4.10.15 New Mexico Administrative Code: Cultural Resources, Cultural Properties and Historic Preservation, Standards for Survey and Inventory. Standards included a records search and a pedestrian survey of the project area and cultural buffer zone on either side of the ROW.

The inventory of the proposed Aztec Sewer Outfall Line Project yielded a total of two previously recorded sites, LA 68214 and LA 122905. Site LA 68214, an in-use segment of the Elledge Mill Ditch, was recommended to be eligible to the National Register of Historic Places (NRHP) under Criteria A and C. The State Historic Preservation Office (SHPO) determined that site LA 122905, the Chaco Street Bridge, was eligible for listing in the NRHP under Criteria A and C. A single previously recorded site, LA 15235, was not relocated in the current survey area. Site LA 15235 was originally recorded as a Pueblo III period roomblock. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

The proposed action will include the replacement of the existing corrugated metal pipe that carries the Elledge Mill Ditch under S. Oliver Ave. where the proposed sewer line crosses the ditch. SME consulted SHPO in December 2015 regarding the replacement of the subject culvert along the Elledge Mill Ditch. SHPO determined that the culvert replacement will not result in an adverse effect to the Elledge Mill Ditch (Site LA 68214) (Appendix F).

The proposed undertaking crosses NMDOT right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and State Register of Cultural Properties (SRCP) listing; however, the NMDOT Environmental Design Division did not require an evaluation of eligibility during the project archaeological investigation. The proposed undertaking should have no adverse effect on NMDOT bridges. All construction activities will take place under the NMDOT bridges and at a sufficient distance from its surface features, piers, and footings to eliminate the risk of any direct effects.

Minor project re-alignments that occurred since the El Morro CRM have been surveyed for potentially eligible sites by Dykeman Roebuck Archaeology on September 25, 2014 and December 11, 2015 as documented in Appendix D. No additional sites were discovered.

The proposed undertaking should have no adverse effect on historic properties with recommended protection measures. SHPO concurs that qualified archaeological construction monitors should be onsite during construction activities within 100 feet of any previously recorded sites.

3.8.1 American Indian Religious Concerns

Traditional Cultural Properties (TCPs) is a term that has emerged in historic preservation management and the consideration of Native American religious concerns. TCPs are places that have cultural values that transcend, for instance, the values of scientific importance that are normally ascribed to cultural resources such as archaeological sites. The National Park Service has defined TCPs as follows:

A Traditional cultural property...can be defined generally as one [a property] that is eligible for the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (National Register Bulletin 38).

Native American cultural associations are the “communities” most likely to identify TCPs, although TCPs are not restricted to this group. Some TCPs are well known, while others may only be known to a small group of traditional practitioners with the specific site known or vague.

There are several pieces of legislation or Executive Order that can be linked to an evaluation of Native American religious concerns. These govern access and use of sacred sites, possession of sacred items, protection and treatment of human remains, and the protection of archaeological resources ascribed with religious or historic importance. These include the following:

- The American Indian Religious Freedom Act of 1978 (AIRFA; 42 USC 1996, P.L. 95-431 Stat. 469).
- Executive Order 13007 (24 May 1996).
- The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA; 25 USC 3001, P.L. 101-601).
- The Archaeological Resources Protection Act of 1979 (ARPA; 16 USC 470, Public Law 96-95).

The proposed action is located in the northeastern portion of ‘Dinetah’, within the Animas River riparian corridor and the Greater Animas River Watershed. ‘Dinetah’ is the traditional homeland of, and is religiously significant, to the Navajo People.

For the proposed action, identification of TCPs were limited to reviewing existing published and unpublished literature, and the selective cultural inventory report conducted for the Proposed Action. Aztec Ruins has been identified as a Navajo affiliated TCP and retains significance for modern Pueblo groups. Aztec Ruins (Kin niteel or Wide House) is a place sacred to the Navajo, with numerous chantway and rite associations (Van Valkenburgh 1974:141). The proposed action is not thought physically threaten the integrity of any TCPs, prevent access to sacred sites, prevent the possession of sacred objects, or interfere or otherwise hinder the performance of traditional ceremonies and rituals.

3.9 Socioeconomics / Environmental Justice

3.9.1 Socioeconomic Issues

No costs to specific individual users would be associated with the proposed action such as connection fees. The cost of the proposed action would be remunerated with municipal, State, and/or Federal funds. The proposed project is not anticipated to have a disproportionate effect upon low income families.

3.9.2 Environmental Justice

The vast majority (over 70%) of residents within 4 miles of the project area are adults, whites, and homeowners, with a household income of over \$25,000. The 2012 US Health and Human Services poverty guideline is \$23,050 for a household of four. See Appendix E for more information regarding the demographic make-up of the project area. The proposed action will serve all populations equally and will be constructed in a manner to ensure that no persons or populations will be discriminated against or denied the benefits of the project because of their

race, color, income level, or national origin. There will be no adverse impacts that are considered disproportionate to any particular population(s) based on ethnicity or income. The installation of the proposed sewer line could have a positive long term effect upon populations in the project area as the proposed sewer line replacement would reduce the risk of line failure and contamination of the project area, and would serve to maintain the current standard of living.

3.10 Other Resources

3.10.1 Public Health and Safety

Installation of the proposed sewer line would reduce the risk of line failure associated with the existing line. Line failure could pose a potential health risk to the local community. Appropriate measures would be taken to ensure risks of injury to the public are controlled during line construction such as barricading trenches, erecting warning signs, and utilizing applicable traffic control measures.

3.10.2 Transportation

Operation of the proposed sewer line is not anticipated to have a detrimental effect upon the local transportation network. Any driveway cuts would be returned to their original condition or better at or before completion of the project. The proposed action would have no impact on the structure or integrity of the NM 516 bridges (NMDOT bridges 6219 and 6220) or their footings (see Section 3.8 above).

Some minor disruption of traffic would occur on local side streets during construction activities of the sewer line. The proposed easement does not cross any arterial roadways. The easement does cross three roads (S. Oliver Ave., Western Dr., and Light Plant Rd.), two of which are dead ends that terminate shortly after the crossings. Use of the three roads appeared to be very light during the field survey of the project area. However, traffic flow will be redirected as necessary during construction activities according to the Manual of Uniform Traffic Devices and applicable traffic control plans developed for the project. The changes in traffic patterns will be temporary, and the construction activities will be conducted in a phased approach.

3.10.3 Visual Impacts

Visual resources and viewsheds for the project area include mainly residential and commercial developments to the north. To the south, views are dominated by the relatively natural setting of the Animas River corridor and associated floodplains populated by cottonwood stands, fallow fields, and Riverside Park. The existing easement is partly overgrown, but a sizeable portion of the line does cross bare ground or pavement. Installation of the new line would likely not be noticeable to the casual observer upon reclamation of the surface. During construction, construction equipment and materials may be temporarily visible to nearby residents and visitors to Riverside Park where construction takes place adjacent to residences and the park respectively. Effects are anticipated to be minor due to the level of existing disturbance and activity adjacent to and within the easement.

3.10.1 Noise

Existing noise levels within the project area were observed to be relatively low during the field survey, and were limited mainly to traffic and pet noise. During construction, there will be a

slight increase in noise pollution from construction equipment. Noise is unavoidable but temporary and is not expected to cause an unacceptable level of impact. Efforts will be utilized to minimize noise impacts. Due to the proximity of residences, construction activities should not take place outside of regular weekday business hours.

3.11 Cumulative Impacts

The construction and operation of the proposed sewer line not anticipated to commit irreversible or irretrievable resources.

The proposed sewer line would serve to transport collected wastewater to the renovated Aztec Wastewater Treatment Plant located at the western end of the proposed line. The treatment plant was recently renovated in order to meet the anticipated future demand increases on the City's wastewater system and to modernize the facility. In order to better serve the treatment facility, the proposed line would increase capacity over the existing line. The proposed line would not in itself increase wastewater volumes or add service beyond what already exists. However, the line would allow for future expansion of the City's wastewater collection system.

Additional cumulative impacts from the proposed action are likely to be low as the proposed line would follow an existing easement. Once constructed, the presence of the line and the effect of the line in the surrounding area would be minimal to imperceptible.

4. SUMMARY OF MITIGATING MEASURES

4.1 Physical Resource Measures

Best Management Practices (BMPs) described in the SWPPP and stipulations associated with the Clean Water Act Section 401 certification and Section 404 permit would effectively mitigate potential effects to soils and water resources. BMPs typically include measures to slow run-off and reduce erosion thereby reducing effects to soils and surface waters. Good housekeeping BMPs will reduce the risk of spilling potential ground water and surface water contaminants. Stipulations associated with 401/404 compliance would mitigate or offset effects to wetlands and surface water resources within the project area. Re-vegetation of the easement will reduce soil loss by reducing erosion.

Some dust will be generated during construction. Mitigation measures will include requirements to reduce dust as needed during construction by watering down or covering disturbed areas.

Replacement of the culvert that conveys the Elledge Mill Ditch along S. Oliver Ave. will occur when the ditch is not flowing. Any driveway cuts would be returned to their original condition or better at or before completion of the project. Traffic control devices will be employed as needed during construction activities.

Efforts will be utilized to minimize noise impacts. Due to the proximity of residences, construction activities should not take place outside of regular weekday business hours.

4.2 Biological Resource Measures

Re-vegetation of the easement will reduce direct effects to vegetation by replacing removed vegetation and will reduce indirect effects to wildlife by replacing forage and cover. Following completion of construction activities, disturbed areas will be reseeded with native vegetation to minimize erosion.

To minimize trapping of wildlife during trenching operations, trenching and backfilling piping will be conducted concurrently. A minimal amount of trenching will be kept open overnight, and escape ramps will be provided for wildlife. Escape ramps should be constructed at least every 300 feet and could consist of lateral trenches or planks not to exceed 45 degrees in pitch. Trenches should be inspected for wildlife prior to backfilling.

If construction activities are to begin during the migratory bird nesting season (April 15 - August 15), a preconstruction survey for active nests should be conducted. Within NMDOT ROW, the migratory bird nesting season is defined as March 1 - September 30; surveys for active nests should occur prior to construction occurring during this period in NMDOT ROW.

In order to reduce the potential for spreading noxious weeds to the project area, Canada thistle and Russian knapweed (as well as any other Class A or Class B state listed noxious weeds observed) should be sprayed with herbicide prior to start of construction activities, as required. No additional mitigation measures are required for noxious weeds.

4.3 Threatened and Endangered Species Measures

All construction activities will occur outside of the migratory bird nesting season (April 15 – August 15; March 1-September 30 in NMDOT ROW). If construction is to occur during this period, a biological monitor will be on site to ensure no active nests are removed. The removal of vegetation will be avoided where possible.

4.4 Socioeconomic / Environmental Justice Measures

By maintaining the existing wastewater collection system, the proposed action will likely have a positive effect on socioeconomic conditions in the area. Provision of basic utilities, such as wastewater collection, will maintain the standard of living in the area.

The proposed project will indirectly benefit minority and low-income populations in Aztec by continuing to provide an effective wastewater collection system to the entire community.

4.5 Archeological, Cultural and Historic Resources Measures

A qualified archaeological construction monitor will be onsite during construction activities within 100 feet of all previously recorded sites in or adjacent to the project area as indicated in the archaeological report and monitoring report.

In order to provide for protection of possible cultural resource materials during construction activities, the construction contract documents should include the following or similar language:

“In the event of a discovery [“discovery” means any previously unidentified or incorrectly identified cultural resources, including but not limited to, archaeological deposits, human remains, or locations reportedly associated with Native American religious/ traditional beliefs or practices], the Contractor must immediately cease all operations in the immediate vicinity of the discovery and notify the Engineer. The Contractor should be aware of his/her responsibilities under the National Historic Preservation Act of 1966 and the Archeological Resources Protection Act of 1979.”

Upon notification of a discovery by the Contractor, the Engineer must immediately notify the New Mexico State Historic Preservation Office (NMSHPO), as well as other Native American groups that have requested notification (the Comanche Tribe, for example).

4.6 Environmentally Sensitive Areas

Best Management Practices (BMPs) described in the SWPPP and stipulations associated with the 401/404 compliance would effectively avoid, minimize, or mitigate potential effects to wetlands or WOUS. BMPs would reduce contamination of wetlands and WOUS as described above in section 4.1.

4.7 Cumulative Impact Measures

No measures are necessary at this time to mitigate cumulative effects of the proposed action.

5. CONSULTATION, COORDINATION, AND PUBLIC INVOLVEMENT

5.1 Agencies Consulted

- New Mexico Office of Cultural Affairs, State Historic Preservation Office
- Pueblo of Acoma
- Hopi Tribal Council
- Pueblo of Laguna
- Kiowa Tribe of Oklahoma
- Navajo Nation
- Ohkay Owingeh
- Pueblo of Zia
- Pueblo of Tesuque
- Ute Mountain Ute Tribe
- Southern Ute Indian Tribe
- U.S. Department of Interior - National Park Service, Intermountain Region
- U.S. Department of Interior - Fish and Wildlife Service, New Mexico Ecological Services Field Office
- New Mexico Department of Game and Fish, Conservation Services Division
- New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division
- U.S. Army Corps of Engineers - Albuquerque District, Regulatory Branch
- U.S. Department of Agriculture - Natural Resources Conservation Service, New Mexico State Office
- New Mexico Environment Department, Environmental Impact Review Coordinator
- New Mexico Environment Department, Surface Water Quality Bureau
- New Mexico Environment Department, Air Quality Bureau
- New Mexico Department of Transportation
- Federal Emergency Management Agency, Region VI
- City of Aztec Flood Plain Administrator
- Elledge Mill Ditch
- San Juan Water Commission
- Center for Biological Diversity
- Forest Guardians
- San Juan Citizens Alliance

See Appendix F for an example of the letter submitted to agencies soliciting comments as well as copies of the response letters received.

5.2 Public Involvement

In addition to the scoping letters mailed to the agencies and interest groups listed above in Section 5.1, the public was also invited to comment on the proposed action during an open Public Hearing. The notice of the hearing was published in the local newspaper of record, posted at public points within the City of Aztec regularly used to post public notices, and a copy of the notice was mailed to all private landowners within the immediate project area. The public hearing was held on January 3, 2013 at 6:00 PM in the Aztec City Hall Commission Meeting Room. See Appendix G for a copy of the public notice, hearing minutes, and the mailing list used.

5.3 Responsiveness Summary

See the blow table for a summary of the public comments received during the public hearing and a response to those comments.

Table 5: Responsiveness Summary

IN THE MATTER OF THE PUBLIC HEARING REGARDING: Replacement of the City of Aztec's Sewer Outfall Line from Aztec Blvd. west to the City's Waste Water Treatment Plant.		
Summary of Public Comments: Private land owners along the existing easement were concerned that the replacement of the existing line within the existing easement would inhibit their use of their private property or would result in the loss of their private property to the City.		
Specific Public Comment	Agency Response	Modifications in response to public comment
1) Land owner was concerned that they would lose their property.	Mike Huber, City Public Works Director (City), explained that there is an existing easement through their property and that replacement of the line would follow this existing easement. They would still retain their existing property, but the City maintains the right to access their easement which may mean that structures built over the easement could be removed by the City with no obligation to replace any such structure.	Comment is beyond the scope of the proposed action.
2) Why can't the City route the line through City property (Riverside Park)?	The City explored this option and determined it would be cost prohibitive. The City has an existing easement through the landowner's property and has the right to utilize the easement to replace the outfall line.	This alternative is discussed in Section 2.3 above.

3) The City will comply with the desires of State and Federal agencies; they should comply with the desires of the people to the same degree.	The City ensured the public that they would do all they could to meet the needs of the landowners, and Mike Huber encouraged the attendants to call him at any time if they wanted to discuss the project more, and that he was available to make site visits to their property if they wished.	The City has expressed their commitment to address the public's concern and has engaged the public through the public hearing process.
4) What would stop the City from coming in and saying "we want to put an arterial road over the line to ease traffic on Aztec Blvd. because we have an easement"?	The City's easement already exists, the construction of the replacement line would not change that. More importantly, the City's easement is a utility easement for the sole purpose of a utility line. The easement does not grant the City the right to develop a road along the easement for a purpose other than accessing the easement.	Comment is beyond the scope of the proposed action.
5) There is a mobile home over or very close to the existing outfall line. What are you going to do about that?	The home was originally placed over the established easement, long after the City acquired the sewer easement. The City has since worked with the owner to move the home out of the City's easement.	The issue is discussed in Section 3.2.1.
6) Will boring under the mobile home lead to settlement?	The City originally planned to bore under the home, but later decided it would be best in the long term to relocate the home outside of the City's easement.	Comment is beyond the scope of the proposed action.
7) Landowner of mobile home park commented that they have filled in the southern portion of the property to create a turn-around area for trucks delivering or removing mobile units, burying the existing outfall line approximately 17 feet deep. Replaced fill upon completion of line replacement must be sturdy enough to support an 80,000 pound trailer.	Disturbance for trenching this section would be temporary, and the backfill would be required to be compacted to 95% of the original fill. This is the same standard for highway construction, and therefore should be suitable to support heavy truck traffic. The existing manhole located on this property will be moved east along the alignment to a spot where the line is not buried so deep. This will limit future maintenance activities on this property, in addition to creating a safer entry point for maintenance.	No additional modifications necessary.

8) What about the future maintenance of this section buried 17 feet deep? How will it affect the trailer park?	The City's right to access their easement for maintenance would not change with this action. The proposed action would improve maintenance access to this portion of the line by relocating the existing 17-foot deep manhole to a shallower area off the trailer park property. If this section of line needed replacement in the future, the section would either be bored, with little to no effect to the trailer park, or open cut. If open cut, there would be a temporary loss of a turn-around area for trailer hauling trucks until the line is backfilled and compacted to 95% compaction of the original fill. The replacement of the existing line would reduce the likelihood that a catastrophic failure of the line along this reach could result in lengthy repairs that may be avoided by the proposed action.	Comment is beyond the scope of the proposed action. The City holds an existing easement that allows access to the alignment for maintenance regardless of the proposed action.
9) A hand-dug well is located within 4 feet of the line in the vicinity of manhole 21. The well is not being used, but the commenter would like to keep that well.	The City made note of the location of the well and will try to avoid the well.	The Contractor will be required to attempt to locate the hand-dug well in the field. Once located, the well location would be fenced for the duration of construction.
10) What will the City do about restoring the construction areas, the City has not lived up to its obligation to clean up after repairs in the past?	Mr. Huber assured the public that he operates in a different fashion than his predecessors. The contractor will be bound to clean up after itself, the City will ensure that the site is restored, any post construction monitoring conducted (wetlands), and that citizens are satisfied.	Site restoration is discussed in Chapter 4 Mitigation.
11) What will the City do about driveways torn up during construction?	Damage to driveways will be repaired as part of the construction contract.	Site restoration is discussed in Chapter 4 Mitigation.

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APPENDIX A

Plan Drawings

(Sheet C301 – see project file for full plan set)

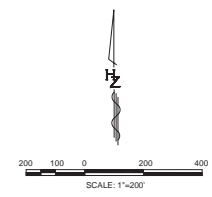
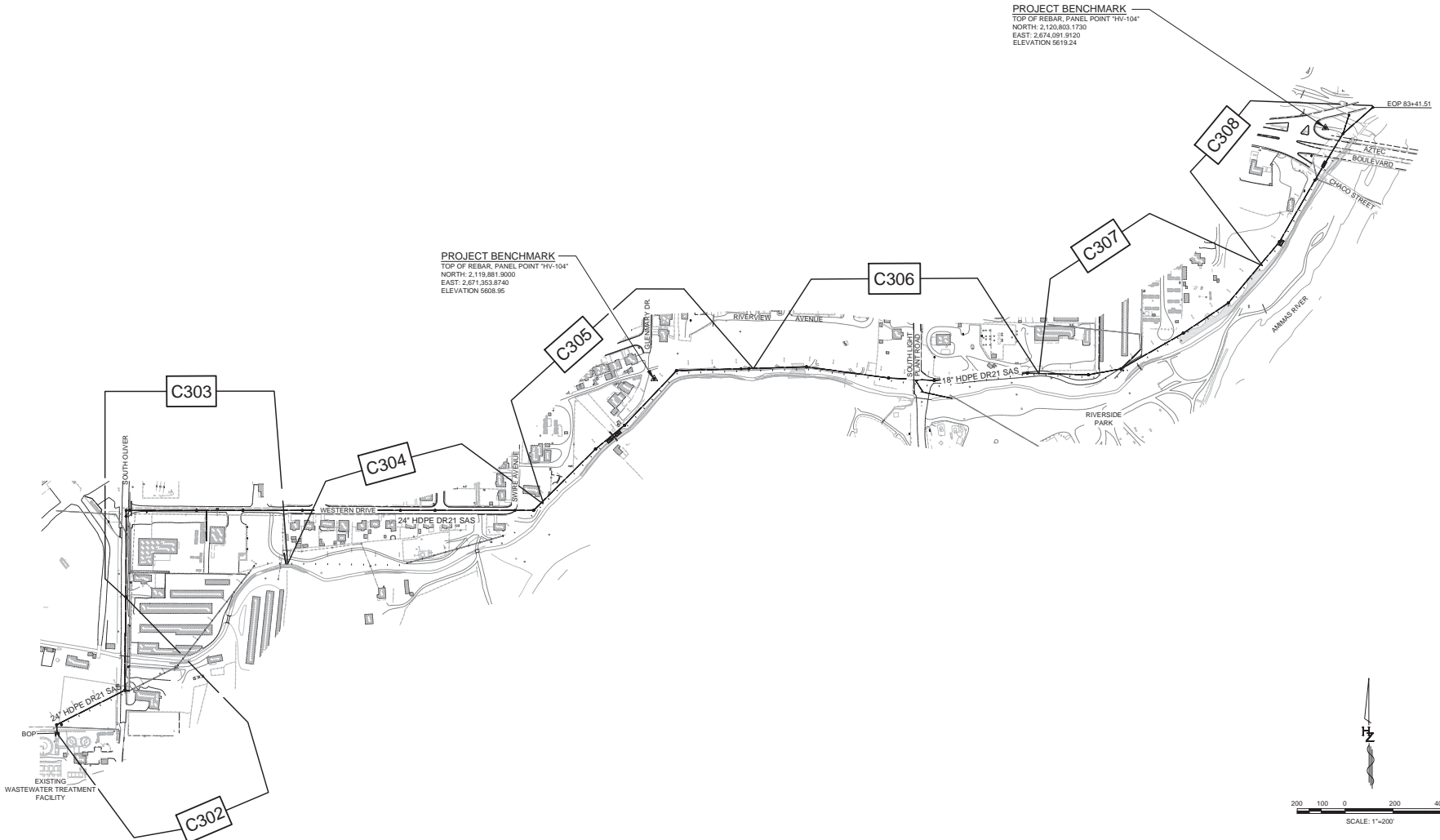
NOTICE OF EXTENDED PAYMENT

NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

PIPE AND MANHOLE BUOYANCY PROTECTION
CONTRACTOR SHALL ANCHOR SANITARY SEWER LINE AND MANHOLES TO RESIST BUOYANCY FORCES THROUGHOUT PROJECT LIMITS. SUBMIT DETAILS TO CITY ENGINEER FOR APPROVAL. BUOYANCY PROTECTION IS INCIDENTAL TO THE PROJECT.

PROJECT BENCHMARK
TOP OF REBAR, PANEL POINT "HY-104"
NORTH: 2,120,803.1730
EAST: 2,074,091.9120
ELEVATION 5619.24

PROJECT BENCHMARK
TOP OF REBAR, PANEL POINT "HY-104"
NORTH: 2,119,881.9000
EAST: 2,071,353.8740
ELEVATION 5608.95



NO.	DESCRIPTION	DATE	BY

HUITT-ZOLLARS
38336 Ranchos Drive NE, Suite 371
Rio Rancho, New Mexico 87124
Phone (505) 582-5141 Fax (505) 892-3289
Designed For: **CITY OF AZTEC**

UTILITY INDEX SHEET
SANITARY SEWER LINE
AZTEC, NEW MEXICO

PRELIMINARY
NOT FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES.
FOR REVIEW ONLY.
SCOTT A. EDDINGS
12856
Date: 15 OCT 15
HUITT-ZOLLARS, INC.
Consulting Engineers
PROJECT NO. 17-0788-01
DESIGNED BY: SAE
DRAWN BY: LRT
CHECKED BY: SAE
DATE: OCT 15, 2015
DPW CHK:

SHEET:
C301

APPENDIX B

Project Area Images

(See Biological Assessment & Addendum)

APPENDIX C

**Biological Assessment
& Addendum**

BIOLOGICAL ASSESSMENT

CITY OF AZTEC, NEW MEXICO AZTEC SEWER OUTFALL LINE PROJECT



Prepared for:



303 South Ash Street
Aztec, New Mexico 87410

Prepared By:



ENVIRONMENTAL CONSULTANTS
679 East 2nd Avenue Unit E2
Durango, Colorado 81301

JANUARY 2013

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ATTACHMENTS

ATTACHMENT A - Survey Plats
ATTACHMENT B - Plant and Wildlife Species List
ATTACHMENT C - Photo Documentation

1. INTRODUCTION

A Biological Assessment (BA) was prepared by SME Environmental, Inc. (SME) on behalf of the City of Aztec. The purpose of this Biological Assessment is to identify and analyze possible project related effects on US Fish and Wildlife Service (USFWS) and State of New Mexico listed threatened, endangered, candidate, and otherwise designated species or their designated critical habitats.

2. PROJECT DESCRIPTION

2.1 Project Location

The project proposed by the City of Aztec, the Aztec Sewer Outfall Line Project, is a sewer line replacement located within existing sewer line easements. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Northwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project survey plan drawings are on file with the City of Aztec Public Works Department (303 S. Ash Ave., Aztec, NM 87410; (505) 334-7660). Sheet U1 of the plan drawings is provided as Attachment A. The proposed project is located within the City of Aztec, NM. The line would roughly parallel the Elledge Mill Ditch from Aztec Blvd. west to South Oliver Dr. The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0033° W
Datum: NAD 83

Western Terminus
Latitude: 36.8195° N
Longitude: 108.0218° W
Datum: NAD 83

2.2 Project Disturbance

The development of the proposed sewer line replacement project will require the placement of a new sewer line adjacent to an existing sewer line and within the existing easement. Construction of the proposed pipeline will require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Approximately 7,188 feet of sewer line would be installed. Approximately 60 percent (engineer's estimate) of the proposed line would be bored underground to avoid surface resources and excess surface disturbance. The proposed sewer line would leave the existing easement for approximately 1,596 feet at the western end of the proposed alignment in order to avoid buildings that overlie the existing easement. Since the installation of the original sewer line, buildings at A-1 Mini

Storage in Aztec have been constructed over the existing easement. The existing sewer line will be left in place.

The City of Aztec plans to develop a 60-foot wide easement. Total area for the proposed easement would be approximately 8.52 acres.

3. METHODOLOGY

3.1 Off-Site Methods

Prior to conducting the on-site field survey, SME staff compiled a list of USFWS and New Mexico listed species with potential to occur in San Juan County. Federally listed species for the USFWS were obtained from the USFWS Southwest Region Endangered Species List and are listed in Table 1 (USFWS 2012). New Mexico state listed fauna were compiled from the New Mexico Department of Game and Fish and the New Mexico Natural Heritage Program (NMDGF 2012). New Mexico state listed flora were compiled from the New Mexico Rare Plant Technical Council (NMRPTC 1999) and are listed in Table 2.

3.2 Survey Methods

A site survey of the proposed City of Aztec Outfall Sewer Line replacement project was conducted on December 10, 2009. The survey methods included walking parallel transects along the project alignment and adjacent easement. Weather conditions were mostly sunny, winds were light out of the west 0-5 miles per hour (mph), and ambient temperatures were around 25°F. The project and surrounding areas were visually inspected with binoculars for raptors and nests or evidence of previous raptor use. All plant and wildlife species observed in the project area were recorded (Attachment B) and digital photos of the project area were taken. A follow-up site survey was conducted on August 29, 2012 to confirm data collected during the original site survey; no notable changes in the project area were observed.

4. ACTION AREA

4.1 Proposed Project and Action Area

The proposed project area includes the proposed sewer line and easement. The action area consists of the surrounding area within a 1/3 mile radius.

4.2 Physical Description

The east end of the project site can be accessed at the western abutment of the NM Hwy 516 (West Aztec Blvd.) bridge crossing the Animas River. The west end of the project is the City of Aztec Wastewater Treatment Plant located at the south end of South Oliver Drive. The project area is located along a slope between two valley terraces northwest of the Animas River and above the 100-year floodplain of the river. The easement generally contours the upper terrace edge; generally paralleling the uphill edge of the Elledge Mill Ditch. The project area is bound by mixed-use residential and commercial properties and roadways to the north/west and by the Animas River floodplain to the south/east, which also includes the City of Aztec's Riverfront Park.

The slopes within the proposed project range from 3-70 % and the slopes direct surface run-off south towards the Elledge Mill Ditch and the Animas River beyond. The Elledge Mill Irrigation Ditch is an artificial waterway that maintains downstream surface connection to the Animas River. Wetlands line the banks of the ditch and are primarily supported by this artificial water source. Other small wetland areas within the project area are supported primarily by concentrated surface runoff in swale features. The Elledge Mill Ditch flows during the growing season and may also intercept and convey water during storm events.

Surface geological material in the proposed project area is composed of quaternary alluvium. Soils were mapped as part of the Natural Resources Conservation Service (NRCS) web soil survey of San Juan County (USDA 2007b) (Figure 4). The soil unit descriptions derived from the USDA NRCS soil reports are included in the table below.

Table 1. Soil Units that Occur in the Proposed Project Area.

Soil Unit	Brief Description	Hydric Soils	Percent of Project Area
Fruitland loam, 5-8% slopes	A well drained soil found on alluvial fans and stream terraces at elevations ranging from 4,800 ft to 6,000 ft that was formed from slope alluvium derived from sandstone and shale with a moderate available water capacity and composed of loam and fine sandy loam.	Does not meet hydric criteria.	55%
Turley clay loam, 1-3% slopes	A well drained soil found on alluvial fans at elevations ranging from 4,800 ft to 6,000 ft formed from fan alluvium derived from sandstone and shale with a high available water capacity composed of clay loam.	Does not meet hydric criteria.	26%
Fruitland sandy loam, 2-5% slopes	A well drained soil found on alluvial fans and stream terraces at elevations ranging from 4,800 ft to 6,400 ft that was formed from alluvium derived from sandstone and shale with a moderate available water capacity and composed of sandy loam.	Does not meet hydric criteria.	13%
Stumble loamy sand, 0-3% slopes	A somewhat excessively drained to well drained soil found on dunes and alluvial fans at elevations ranging from 4,800 ft to 6,400 ft formed from eolian deposits derived from sandstone and fan alluvium derived from sandstone and shale with a low to moderate available water capacity and composed of loamy sand, gravelly loamy sand, loam and fine sandy loam.	Does not meet hydric criteria.	3%
Walrees loam	A somewhat poorly drained soil found on floodplains at elevations ranging from 6,400 ft to 7,200 ft on 0-2% slopes formed from mixed alluvium with a moderate available water capacity formed from stratified gravelly sand.	Does not meet hydric criteria.	2%
Werlog loam	A somewhat poorly drained soil found on floodplains at elevations ranging from 6,400 ft to 7,200 ft on 0-1% slopes formed from mixed alluvium with a high available water capacity and composed of loam, stratified fine sandy loam to clay loam and stratified sand to cobbly sand.	Does not meet hydric criteria.	1%

USDA 2007b

4.3 Biological Description

The project area is located at the transition of the Animas River floodway and an upland valley terrace. The floodway contains areas of native riparian communities characterized by the dominant presence of Fremont cottonwood (*Populus fremontii*), but the terrace slope, on which the study area is located, generally contains a transitional upland community characterized by the dominant presence of three leaf sumac (*Rhus trilobata*), Chinese elm (*Ulmus pumila*) Wood's rose (*Rosa woodsii*) and smooth brome (*Bromus inermis*). Two wetland areas also cross the study area. The eastern wetland area is a willow (*Salix*)/reed (*Phragmites*) dominated wetland community and a western wetland area is a cattail (*Typha*) dominated wetland community that also supports various wetland grasses and rushes including Torrey's rush (*Juncus torreyi*) and scratch grass (*Mulhenbergia asperifolia*). The vegetation located within the easement is largely disturbed due to disturbance related to the original construction and ongoing maintenance activities on the existing sewer line, ditch and overhead utility lines.

Four State of New Mexico listed noxious weed species were observed within the project area. One Class A species, Canada thistle (*Cirsium arvense*); one Class B species, Russian knapweed (*Acroptilon repens*); and two Class C species, cheatgrass (*Bromus tectorum*) and Russian olive (*Elaeagnus angustifolia*) were observed.

Evidence of habitat utilization by wildlife in the analysis area was revealed through tracks, droppings, vocalizations, and visual identification of individuals. Tracks and scat of striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), and mule deer (*Odocoileus hemionus*) were observed along a trail following the south side of the Elledge Mill Ditch. A large number of deer (up to one dozen) and prairie dog burrows were observed in the study area. One bald eagle (*Haliaeetus leucocephalus*) was observed perched in a large cottonwood overarched the Animas River approximately 900 feet east of the project site, while a second bald eagle was observed flying west along the river corridor. A female northern harrier (*Circus cyaneus*) was observed flying low over meadow areas in the Animas River floodplain. Numerous Canada geese (*Branta canadensis*) were observed along the banks of the Animas River. A medium sized stick nest was observed in the top of a large cottonwood tree within 100 feet of the proposed alignment. The nest may be that of a red-tailed hawk (*Buteo jamaicensis*) or raven (*Corvus corax*). A complete list of wildlife inferred and observed during the on-site field survey is included in Attachment B.

5. SURVEY RESULTS

5.1 USFWS T&E Species

According to the USFWS, there are 12 federally threatened, endangered, proposed, or candidate species with the potential for occurrence in San Juan County, New Mexico. Table 2 below lists these species, their conservation status, habitat requirements, and provides an evaluation of the potential for these species to occur in the proposed action area. None of the federally listed species were identified during the field survey. One (1) of the 12 species, the southwestern willow flycatcher (*Empidonax traillii extimus*), has potential to occur in the proposed action area based upon evaluations of their habitat

requirements and field surveys. Effects to federally listed species are described further below in Section 6 - Determinations.

5.2 State T&E Species

Table 3 below lists the nine (9) State threatened or endangered species most likely to occur in San Juan County, their habitat requirements, and provides an evaluation of the potential for these species to occur in the proposed action area. Of the nine (9) State of New Mexico threatened or endangered species with potential to occur in San Juan County, New Mexico, three (3) have the potential to occur in the action area: American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), and spotted bat (*Euderma maculatum*).

The Animas River corridor provides potential foraging habitat for the peregrine falcon. The study area, however, does not provide large cliffs or tall buildings and bridges to supply suitable nesting habitat. The nearest known peregrine falcon nest lies 15 miles north of the project site above the Animas River (BLM 2008). Peregrine falcons most often forage within 10 miles of their nests. Potential prey species of peregrine falcon may be temporarily displaced during construction activities at the proposed project site. This would have a negligible effect on peregrine falcon as there is abundant forage habitat elsewhere in the Animas River corridor and the study area is not unique to the Animas River corridor.

Large cottonwood trees along the perennial Animas River provide suitable habitat for winter bald eagle foraging and night roosting. No bald eagle nests were observed in the study area, and bald eagles are not known to nest in San Juan County (J. Kendall, personal communication 2009). The nearest known bald eagle roost is located near the Colorado border approximately 13 miles north of the proposed action (BLM 2008). The project site lies as close as 100 feet from numerous large cottonwood trees that would provide physically suitable winter roost habitat. No potential habitat would be removed by the proposed action; however, bald eagles roosting and foraging in adjacent areas along the Animas River may experience noise from construction equipment and visual activity during daylight hours. It is unlikely that these activities would constitute a substantial interference to bald eagle breeding, feeding, or sheltering behavior. Bald eagles who utilize this somewhat developed area in the center of the City of Aztec are likely habituated to noise and activity related with residential and commercial development adjacent to the project site, vehicle traffic on the busy roads crossing the river, and activity within Riverside Park.

The proposed action area lies within the known range for the spotted bat (*Euderma maculatum*) (NMDGF 2012). Preferred habitat for this species in New Mexico includes meadows in subalpine coniferous forest, although the spotted bat is known to utilize a wide range of habitat types in or near forested areas nearby open water (NMDGF 2012). Spotted bats roost diurnally in cracks and crevices of cliffs and canyons and feed primarily on moths (NMDGF 2012). The species forages over standing water or high meadows (NMDGF 2012). Spotted bats have been documented to travel long distances between day-roost sites and foraging areas (NMDGF 2012). The Animas River provides a close source of open water; however, no rocky roost habitat was observed in or near the

action area. The spotted bat has been captured in Aztec, but the lone instance was considered unusual, and it was assumed that the bat was migrating to winter quarters (NMDGF 2012). Due to the lack of roosting habitat and preferred foraging habitat within the proposed action area, the removal of transitional riparian and upland shrubs and herbaceous vegetation in the proposed action area will have a negligible effect on potential spotted bat habitat.

5.3 Migratory Bird Compliance

Executive Order 13186 addresses concerns over impacts toward migratory birds and their habitats. The Migratory Bird Treaty Act (16 U.S.C. § et seq.) notes numerous birds of the southwestern United States that are assigned a migratory status (most notably those included in the USFWS BCR 16 list). The intent is to minimize the “take” of migratory birds through consideration in land use decisions and in conjunction with the USFWS. The implications of this action have been assessed in conjunction with the site visit to evaluate potential impacts to protected species. Migratory birds common to the southwestern United States are likely to be present in the study area. Migratory birds identified by the New Mexico Partners in Flight as having highest management priority for middle elevation riparian woodland include:

- Yellow-billed Cuckoo (*Coccyzus americanus*)
- Lewis’s Woodpecker (*Melanerpes lewis*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Willow Flycatcher (*Empidonax traillii*)
- Lucy’s Warbler (*Vermivora luciae*)
- Summer Tanager (*Piranga rubra*)
- Painted Bunting (*Passerina ciris*)

A medium sized stick nest was observed in the top of a large cottonwood tree within 100 feet of the proposed alignment.

Bald eagles (*Haliaeetus leucocephalus*) and Golden eagles (*Aquila chrysaetos*) are protected under the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.) and the Bald and Golden Eagle Protection Act (Title 16 Chapter 5A, Subchapter II, § 668A-D). The Act prohibits the take of eagles including the disturbance of eagles defined as activities that “agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” The USFWS recommends minimizing potentially disruptive activities and development in the eagles’ direct flight path between their nest and roost sites and important foraging areas (USFWS 2007a). The proposed action is located adjacent to potential foraging and roosts areas, but will not be located between, or intersect flight paths between, such areas.

Golden eagles are year-round residents of New Mexico utilizing a variety of habitats throughout the state, showing a preference for mountainous terrain with coniferous forests and woodland-shrubland complexes. Ledge cliffs and occasionally large trees from sea level to 12,000 ft above sea level provide preferred nesting opportunities. The proposed project area does not contain potential golden eagle nest sites and the nearest documented golden eagle nest is located approximately 5 miles north of the proposed project area. The proposed project would not directly affect golden eagles, nor would it constitute a substantial interference to breeding, feeding, or sheltering behavior.

6. DETERMINATIONS

A total of 12 federally listed threatened, endangered, proposed, and candidate species were analyzed for potential impacts by the proposed action. A “no effect”/“no impact” determination is warranted for 11 of these species for the specified proposed project area. One species, the southwestern willow flycatcher, warrants a determination of “may affect, not likely to adversely affect”. These 12 species determinations are further discussed below.

Black-footed ferret

The proposed project will have “no effect” on the black-footed ferret (*Mustela nigripes*). The analysis area lacks suitable prairie dog colonies of 80-acres or more. The surrounding prairie dog habitat could not support a population sufficient for black-footed ferrets. The handful of burrows observed in the project area did not indicate that an extensive colony exists within the study area. The maximum area around the project site suitable for prairie dogs does not exceed 20 acres.

Canada lynx

The proposed project will have “no impact” on individuals or populations of the Canada lynx (*Lynx canadensis*) due to a lack of suitable habitat. The analysis area is well below the elevation range of suitable habitat for the species. The Animas River corridor is unlikely to provide a suitable migratory corridor for the species as there are no suitable habitats near the Animas or San Juan Rivers downstream of the project area.

Mexican spotted owl

The proposed project will have “no effect” on the Mexican spotted owl (*Strix occidentalis lucida*) due to a lack of suitable habitat. The analysis area does not contain the preferred geography such as steep-sided canyons, or forest type such as dense, mature coniferous forest.

Southwestern willow flycatcher

The proposed project warrants a “may effect, but not likely to adversely affect” determination for the southwestern willow flycatcher (SWFL). A 0.3-acre patch of palustrine scrub-shrub (PSS) vegetation dominated by willow and reed would be directly impacted by the construction of the proposed sewer line. The wet area is situated in a small depression between the Elledge Mill Ditch and a slope uphill of and north of the

ditch. The depression formed as a result of the construction of the Elledge Mill Ditch across what was once a small swale that likely drained south towards the Animas River. Within this PSS patch, SME identified approximately 0.06 acre of willow that would meet the most basic habitat requirements for SWFL. The nearest neighboring willow patches are located approximately 1,400 feet to the west. No natural waterway is labeled on the Aztec, NM. 7.5' USGS quadrangle map in relation with this patch, and no waterway was identified within this patch in the field. The wet area likely receives a seasonal charge from upslope run-off and percolation from the Elledge Mill Ditch. The habitat patch exhibits adequate ground water to support such habitat. Furthermore the potential habitat is approximately 100 ft northwest of the Animas River channel. However, the isolated patch is not part of a larger complex of suitable riparian habitat. Informal consultation with the USFWS has determined that the 0.06 acre habitat patch would be marginally suitable at best given the relatively dry nature of the site, the low stature of the willows, the low density of the willows, and the very small size of the patch (D. Hill, personal communication 2012). In addition, USFWS indicates that there are no known SWFL nest territories in or near the project area (D. Hill, personal communication 2012).

In addition to potential habitat within the project area, a large (10-acre) cottonwood/willow/Russian olive wetland complex occurs approximately 150 feet south of the alignment in the historical floodplain of the Animas River from Light Plant Road west to Swire Ave. The abutting 10-acre cottonwood/willow complex is moderately mature with approximately 10% cottonwood canopy (30-50 feet high) and approximately 50% willow canopy (8-15 feet high), interspersed with wet meadow/marsh areas immediately adjacent to the Animas River. The complex appears to provide the vegetation and hydrology suitable to support SWFL.

The effects on potential SWFL habitat in the analysis area from the proposed action are likely to be insignificant and discountable. Anticipated direct impacts from the installation of the proposed sewer line would be the removal of the 0.06 acre patch, increased noise from construction activities, and elevated levels of fugitive emissions. Removal of the 0.06 acre patch would have an insignificant effect on SWFL due to the poor suitability of the patch and these effects are likely to be discountable due to the unlikelihood that any SWFL occur in the action area. Current direct impacts to potential SWFL habitat in and adjacent to the project area include noise and activity from an adjacent mobile home park, other residences, the adjacent pedestrian River Trail maintained by the City of Aztec, and the nearby Riverside Park opposite the Elledge Mill Ditch. New disturbances associated with the proposed action are likely to increase existing disturbances in the short term. The relatively short duration of these activities and the distance of these activities in relation to the 10-acre cottonwood-willow complex would constitute insignificant effects. Effects resulting from noise and fugitive emissions are likely to be discountable due to the unlikelihood of SWFL to occur in the action area.

Yellow-billed cuckoo

The proposed project will have “no impact” on individuals or populations of the yellow-billed cuckoo (*Coccyzus americanus*) due to a lack of extensive mature cottonwood

galleries in the study area and the lack of impact to potential habitat. While the terrain surrounding the study area does contain stands of cottonwoods, these stands are not populated with extensive, mature cottonwood galleries with a dense understory of shrubs that would provide the preferred nesting habitat for yellow-billed cuckoos. In addition, no mature cottonwood habitat will be removed by the proposed project.

Whooping crane

The proposed project will “not jeopardize” the continued existence of the whooping crane (*Grus americana*) due to a lack of suitable breeding or feeding habitat. Wetlands in and adjacent to the project area lack the open, shallow and calm waters associated with breeding and feeding habitat. There are also no suitable agricultural or cropland fields in or adjacent to the project area that would provide suitable forage. Lastly, the Rocky Mountain experimental population program has been discontinued; it is unlikely that the few individuals from the program that may have survived to this date would occur in the action area.

Colorado pikeminnow

The proposed project will have “no effect” on the Colorado pikeminnow (*Ptychocheilus lucius*) because there will be no depletions associated with the project implementation. The proposed project would not affect water quality or quantity within the San Juan River or its tributaries.

Razorback sucker

The proposed project will have “no effect” on the razorback sucker (*Xyrauchen texanus*) because there will be no depletions associated with the project implementation. The proposed project would not affect water quality or quantity within San Juan River or its tributaries.

Roundtail chub

The proposed project will have “no impact” on individuals or populations of the roundtail chub as there would be no effects on potential habitat. Roundtail chub is historically known to occur in the Animas River (NMDGF 2012). While the project site is very near the Animas River, the proposed project would not affect water quality or quantity within the Animas River or have any direct or indirect effects on the bed or banks of the river. A Stormwater Pollution Prevention Plan will be prepared for the proposed project to ensure the protection of surface and ground water resources.

Knowlton’s cactus

The proposed project will have “no effect” on the Knowlton’s cactus (*Pediocactus knowltonii*) due to a lack of proper geologic substrate in the study and analysis areas.

Mancos milkvetch

The proposed project will have “no effect” on the Mancos milkvetch (*Astragalus humillimus*) due to a lack of proper geologic substrate in the study and analysis areas.

Mesa Verde cactus

The proposed project will have “no effect” on the Mesa Verde cactus (*Sclerocactus mesae-verde*) due to a lack of proper geologic substrate in the study and analysis areas.

7. RECOMMENDATIONS

The USFWS recommends minimizing the amount of vegetation being removed and conducting all work outside of the migratory bird nesting season (April 15- August 15), unless there is a biological monitor on site to ensure no nests are present prior to vegetation removal (D. Hill, personal communication 2012).

If nesting building activities are observed, hazing/exclusion activities should be implemented. Hazing techniques utilize visual and/or auditory devices which produce negative stimulation for birds, deterring them from landing in an area. Exclusion is the prevention of birds from entering a specific area using netting, and/or screening. Hazing/exclusion techniques should be continued until site vegetation has been removed for construction purposes. Completed/occupied nest should be avoided.

Clear cutting of trees and mowing of vegetation should be avoided. Both remove potential habitat for migratory and resident species. Standing dead trees are also suitable habitat for many species providing cavity nesting sites and preferred roosting positions.

Implementing Stormwater Pollution Prevention Plan BMPs pre- and post- construction will minimize potential erosion/sedimentation to aquatic resource locations.

Contractors should not conduct fueling or lubricating of construction equipment or other motor vehicles within 100 ft of open water sources, or other wetland areas. Major repairs to construction equipment should be performed offsite, where possible.

8. CERTIFICATION

To the best knowledge of Sugnet & Moore Environmental, Inc., the proposed project, with the successful implementation of mitigation measures, would not violate any provisions of the Endangered Species Act of 1973, as amended. Conclusions are based on actual field examinations and are correct to the best of my knowledge.

Signature of Field Biologist:  **Date:** January 15, 2013

Nathan Kirker, Biologist

SME Environmental, Inc., 679 East 2nd Avenue – Unit E2, Durango, CO 81301

9. REFERENCES

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Table 2. Species listed by the USFWS under the authority of the Endangered Species Act of 1973 for San Juan County, New Mexico (E = Endangered, T = Threatened, C = Candidate for listing).

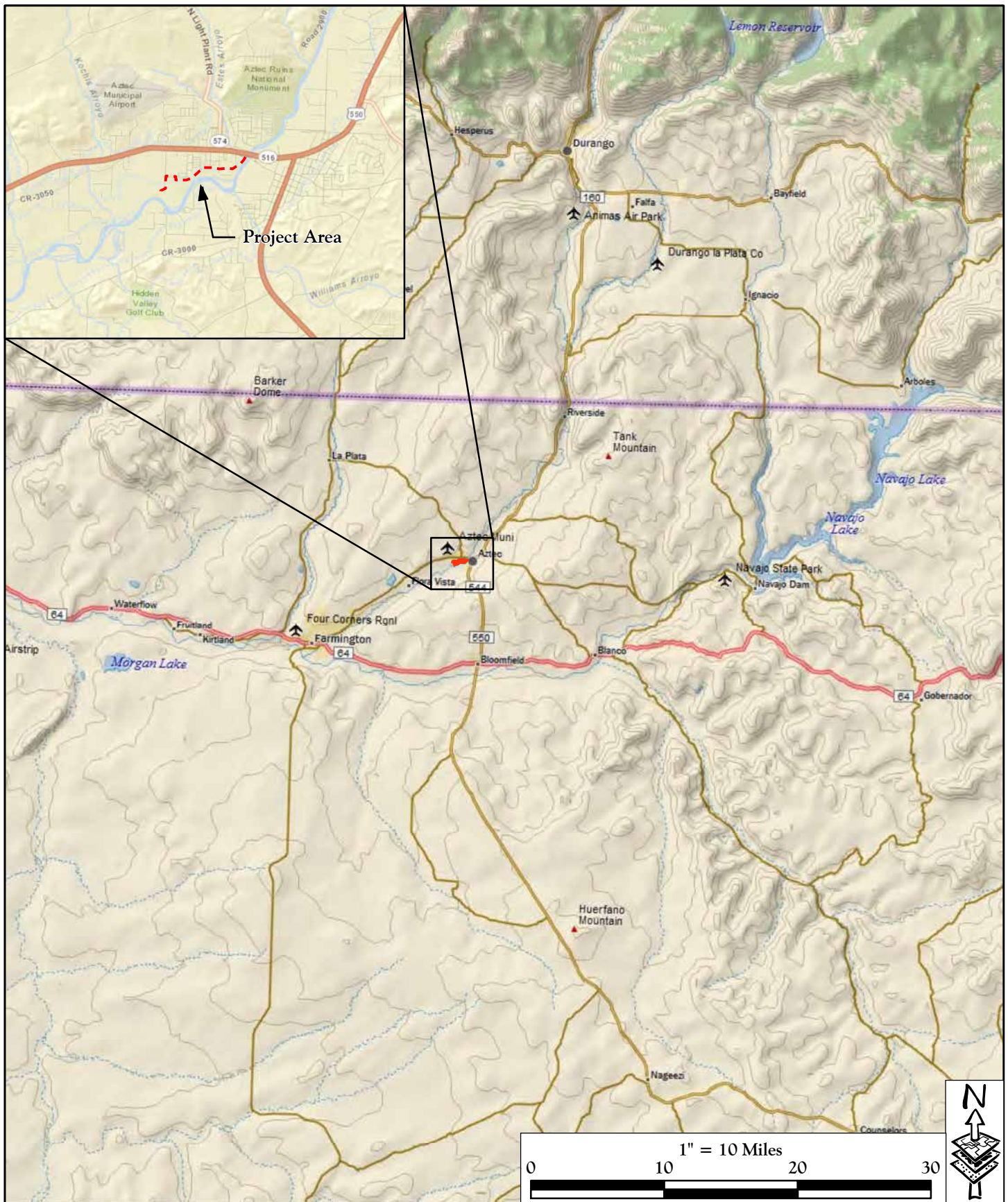
Species Name	Conservation Status	Habitat Associations	Potential to Occur in the Proposed Action Area
Mammals			
Black footed ferret (<i>Mustela nigripes</i>)	FE	Grassland plains where it occurs in association with prairie dogs. At a minimum, the black-footed ferret requires prairie dog towns of at least 80 acres for suitable habitat.	No known prairie dog colonies are located within the proposed action area.
Canada lynx (<i>Lynx canadensis</i>)	FC	Mature subalpine coniferous forests with uneven-aged stands, boulder outcrops, and downed logs.	No subalpine forests occur within the proposed action area; elevation too low. No riparian corridors suitable for migration occur in or near the proposed action area.
Birds			
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE	Riparian habitats along rivers, streams, or other wetlands with dense growths of willows or other shrubs and medium sized trees.	Limited suitable habitat occurs in and adjacent to the project area.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	FT	Mature montane forest and in shaded, woody, and steep canyons.	No montane forests are located within the project or analysis area.
Whooping crane (<i>Grus americana</i>)	Experimental, non-essential population; Rocky Mountain population	Nests at shallow diatom ponds that contain bulrush. Migration: wetland mosaics most suitable. Feeding: primarily use shallow, seasonally and semi permanently flooded palustrine wetlands for roosting, and various cropland and emergent wetlands.	No suitable wet areas or cropland occur in or near the analysis area. Rocky Mountain experimental population has been discontinued.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FC	Low to mid-elevation riparian woodlands, deciduous woodlands, and abandoned farms and orchards.	There are no large, mature cottonwood galleries with a dense understory within the project or analysis area.
Fish			
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	FE	Large rivers with strong currents, deep pools, and quiet backwaters.	Nearby Animas River provides potential habitat. No perennial water sources would be impacted by the proposed action. Furthermore, there would be no depletions associated with the proposed project.
Razorback sucker (<i>Xyrauchen texanus</i>)	FE	Habitats include slow areas, backwaters and eddies of medium to large rivers; impoundments.	Nearby Animas River provides potential habitat. No perennial water sources would be impacted by the proposed action. Furthermore, there would be no depletions associated with the proposed project.


Species Name	Conservation Status	Habitat Associations	Potential to Occur in the Proposed Action Area
Roundtail chub (<i>Gila robusta</i>)	FC	Occurs in cool to warm water, mid-elevation streams and rivers with deep pools adjacent to swifter riffles and runs. Cover is usually present (large boulders, tree rootwads, submerged large trees, etc.)	Nearby Animas River provides potential habitat. No perennial water sources would be impacted by the proposed action.
Plants			
Knowlton's cactus (<i>Pediocactus knowltonii</i>)	E	Alluvial deposits that form rolling, gravelly hills in piñon-juniper and sagebrush communities (6,200-6,400 ft.). Distribution restricted to 25 acre locality near La Boca, CO.	Soils in the PAA are sandy, clayey, or loamy in texture and do not contain a high content of organic matter. PAA is outside of type locality.
Mancos milkvetch (<i>Astragalus humillimus</i>)	E	Cracks of Point Lookout Sandstone of the Mesa Verde series (5,000-6,000 ft.).	Point Lookout Sandstone does not occur in the PAA.
Mesa Verde cactus (<i>Sclerocactus mesae-verde</i>)	T	Highly alkaline soils in sparse shale or adobe clay badlands of the Mancos and Fruitland formations (4,000-5,550 ft.).	PAA geology does not consist of Mancos or Fruitland Shale Formations.

USFWS 2012

Table 3. New Mexico Listed Threatened & Endangered Species Most Likely to Occur in San Juan County, New Mexico. NM-T=Threatened or NM-E=Endangered.

Species Name	Conservation Status	Habitat Associations	Potential to Occur in the Proposed Action Area (PAA)
Mammals			
Spotted bat (<i>Euderma maculatum</i>)	NM-T	Roost sites are cracks, crevices, and caves, usually high in fractured rock cliffs. Found in desert to sub-alpine meadows, including desert-scrub, piñon-juniper woodland, ponderosa pine, mixed conifer forest, canyon bottoms, rims of cliffs, riparian areas, fields, and open pasture. Known to forage up to 25 miles from roost.	Proposed action area (PAA) contains suitable habitat for foraging. PAA does not contain suitable rocky/cliff habitat for roosting.
Birds			
Brown pelican (<i>Pelecanus occidentalis</i>)	NM-E	Usually found in marine habitats in warmer waters in North America. Feeds exclusively on fish. Most occurrences in the state are presumed to be of storm-driven birds that moved inland under duress.	PAA includes the Animas River. However, immediate project area is far enough removed from the Animas River as to not be within potential habitat for the species.
American peregrine falcon (<i>Falco peregrinus anatum</i>)	NM-T	Open country near lakes or rivers with rocky cliffs and canyons. Tall city bridges and buildings also inhabited.	PAA contains suitable habitat for foraging, however no preferred nest sites are available in the PAA.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	NM-T	Near lakes, rivers and cottonwood galleries. Nests near surface water in large trees. May forage terrestrially in winter.	PAA provides roosting and foraging opportunities. While suitable nesting habitat is also present, no bald eagles are known to have nested in the area or in the county.
Gray vireo (<i>Vireo vicinior</i>)	NM-T	In northwestern New Mexico, found primarily within mixed piñon-juniper woodland.	No significant piñon-juniper woodland habitat exists in the PAA.
Plants			
Brack's hardwall cactus (<i>Sclerocactus cloveriae</i> ssp. <i>brackii</i>)	NM-E	Sandy clay of the Nacimiento Formation in sparse shadscale scrub (5,000-6,000 ft).	Nacimiento formation soils do not occur in the PAA.
Aztec gilia (<i>Aliciella formosa</i>)	NM-E	Salt desert scrub communities in soils of the Nacimiento Formation (5,000-6,000 ft).	Nacimiento formation soils do not occur in the PAA.
Parish's alkali grass (<i>Puccinellia parishii</i>)	NM-E	Alkaline springs, seeps, and seasonally wet areas that occur at the heads of drainages or on gentle slopes. Requires continuously damp soils during its late winter to spring growing period	No potential habitat in PAA due to lack of alkaline springs, seeps, or seasonally wet areas. Wet areas in the PAA did not appear to have the surface crusts of salt associated with potential habitat for this species.
Goodding's onion (<i>Allium gooddingii</i>)	NM-E	Typically found in mature forests, along north-trending drainage bottoms associated with perennial, intermittent and ephemeral stream courses in mixed-conifer and spruce-fir zones at elevations ranging from 7,000-9,400 ft. elevation	No potential habitat in PAA due to low elevation, lack of habitat.



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	ROAD/VICINITY MAP	FIGURE 1
	AZTEC SEWER OUTFALL LINE BIOLOGICAL ASSESSMENT	Sources: ESRI, DeLorme, AND, Tele Atlas, First American, ESRI Japan, UNEP/WCMC, USGS, METI, ESRI Hong Kong, ESRI Thailand, Procalcuto Prosis

PROJECT LOCATION:

Township 30 North, Range 11 West,
Sections 8, 9, and 17,
NMPM, San Juan County, New Mexico.

Western Terminus:

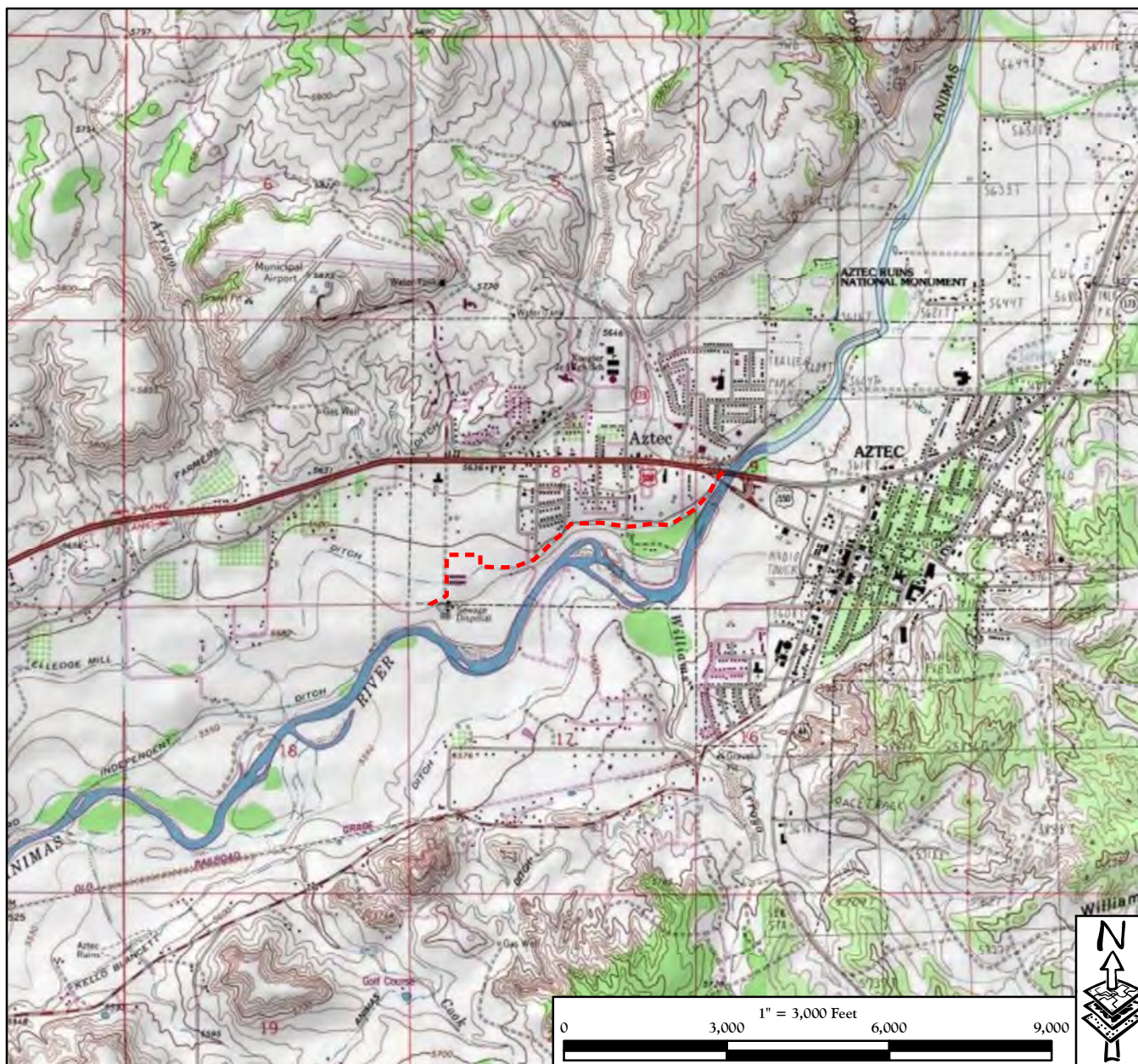
Lat: 36° 49' 10.2" N Long: 108° 01' 18.3" W

Eastern Terminus:

Lat: 36° 49' 34.9" N Long: 108° 00' 12.0" W

Legend

--- Proposed Sewer Line



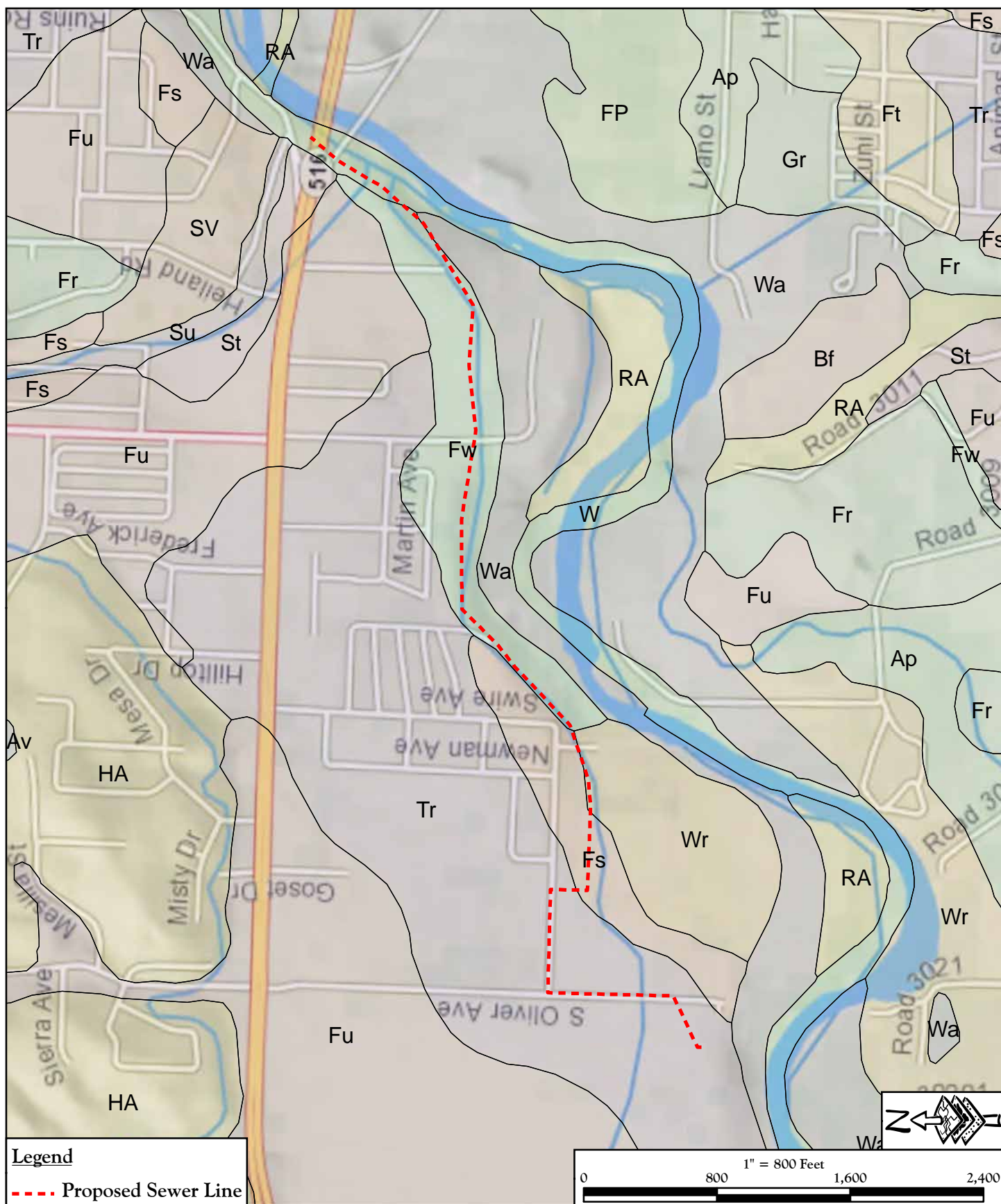
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Durango, Colorado 81301
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PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
BIOLOGICAL ASSESSMENT

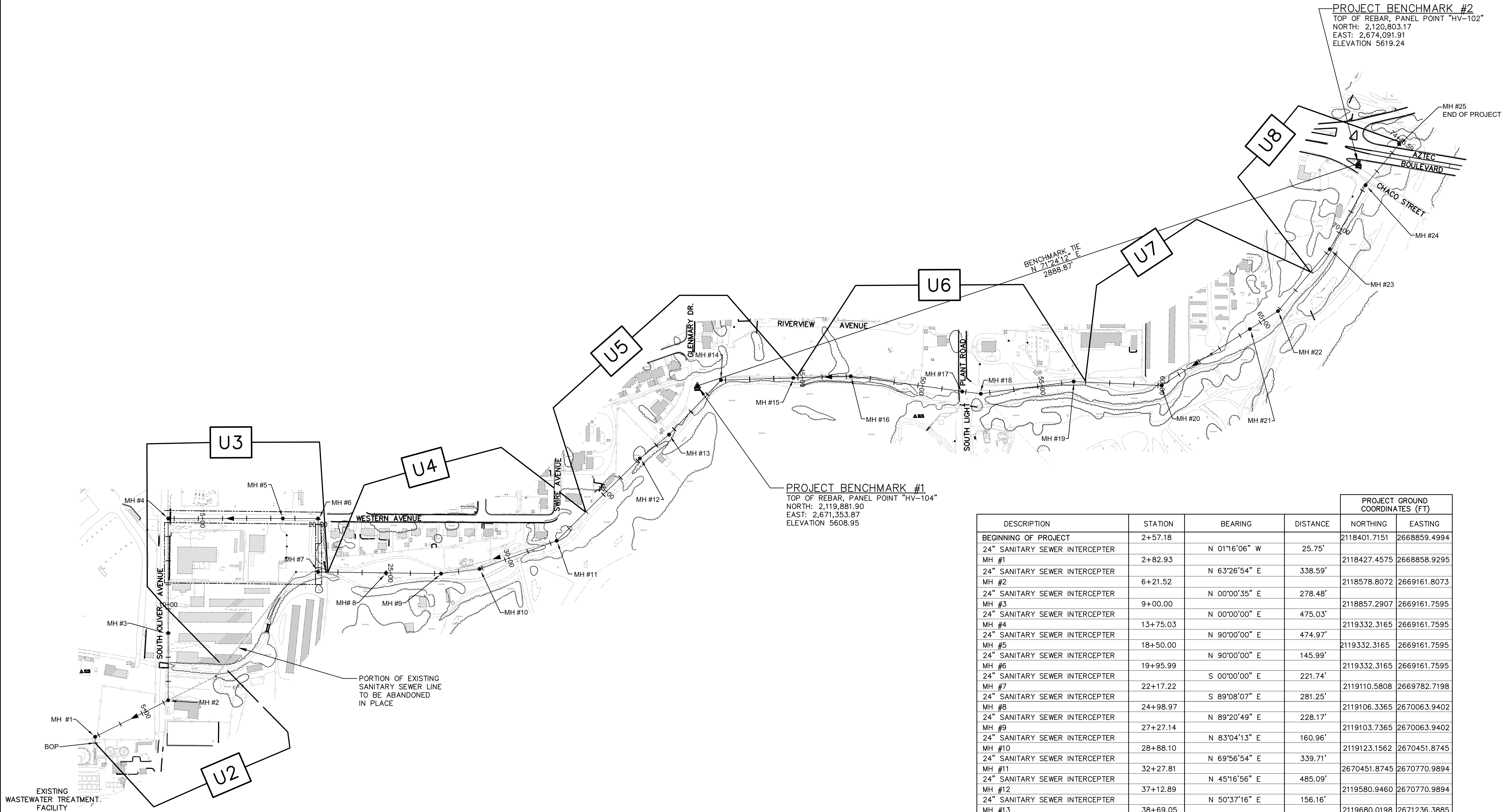
FIGURE 2

Source: Aztec & Flora Vista, New Mexico
7.5' USGS Quadrangles
Copyright: © 2010 National Geographic Society



ATTACHMENT A
PLAN DRAWINGS
(Sheet U1)

Nov 13, 2012 9:03:06am User: addings
C:\PROJ\17078801\DWG\PLOT_FILES\95%AZTEC_SAG_BASE-GEO.DWG [G:\PROJ\17078801\DWG\PLOT_FILES\95%AZTEC_SAG_BASE-GEO.DWG]
Xref: [G:\PROJ\17078801\DWG\PLOT_FILES\95%AZTEC_SAG_BASE-GEO.DWG]



PROJECT BENCHMARK #1
TOP OF REBAR, PANEL POINT "HV-104"
NORTH: 2,119,881.90
EAST: 2,671,353.87
ELEVATION 5608.95

PROJECT BENCHMARK #2
TOP OF REBAR, PANEL POINT "HV-102"
NORTH: 2,120,803.17
EAST: 2,674,091.91
ELEVATION 5619.24

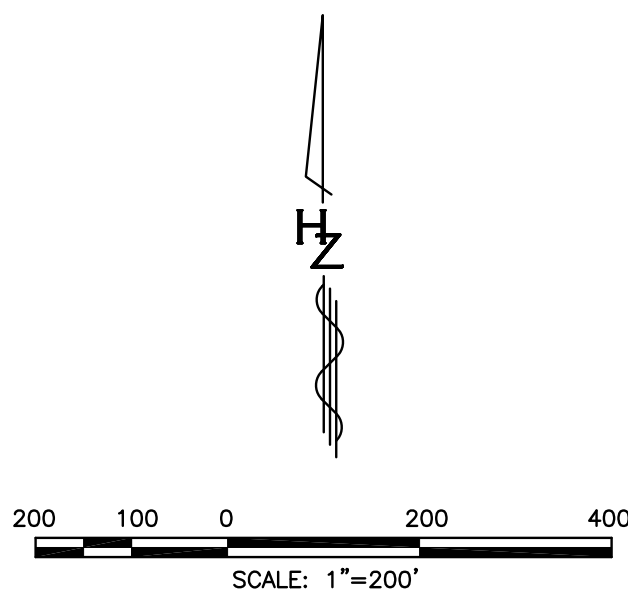
DESCRIPTION	STATION	BEARING	DISTANCE	PROJECT GROUND COORDINATES (FT)	
				NORTHING	EASTING
BEGINNING OF PROJECT	2+57.18			2118401.7151	2668859.4994
24" SANITARY SEWER INTERCEPTER		N 01°16'06" W	25.75'		
MH #1	2+82.93			2118427.4575	2668858.9295
24" SANITARY SEWER INTERCEPTER		N 63°26'54" E	338.59'		
MH #2	6+21.52			2118578.8072	2669161.8073
24" SANITARY SEWER INTERCEPTER		N 00°00'35" E	278.48'		
MH #3	9+00.00			2118857.2907	2669161.7595
24" SANITARY SEWER INTERCEPTER		N 00°00'00" E	475.03'		
MH #4	13+75.03			2119332.3165	2669161.7595
24" SANITARY SEWER INTERCEPTER		N 90°00'00" E	474.97'		
MH #5	18+50.00			2119332.3165	2669161.7595
24" SANITARY SEWER INTERCEPTER		N 90°00'00" E	145.99'		
MH #6	19+95.99			2119332.3165	2669161.7595
24" SANITARY SEWER INTERCEPTER		S 00°00'00" E	221.74'		
MH #7	22+17.22			2119110.5808	2669782.7198
24" SANITARY SEWER INTERCEPTER		S 89°08'07" E	281.25'		
MH #8	24+98.97			2119106.3365	2670063.9402
24" SANITARY SEWER INTERCEPTER		N 89°20'49" E	228.17'		
MH #9	27+27.14			2119103.7365	2670063.9402
24" SANITARY SEWER INTERCEPTER		N 83°04'13" E	160.96'		
MH #10	28+88.10			2119123.1562	2670451.8745
24" SANITARY SEWER INTERCEPTER		N 69°56'54" E	339.71'		
MH #11	32+27.81			2670451.8745	2670770.9894
24" SANITARY SEWER INTERCEPTER		N 45°16'56" E	485.09'		
MH #12	37+12.89			2119580.9460	2670770.9894
24" SANITARY SEWER INTERCEPTER		N 50°37'16" E	156.16'		
MH #13	38+69.05			2119680.0198	2671236.3885
24" SANITARY SEWER INTERCEPTER		N 43°37'13" E	311.88'		
MH #14	41+80.93			2119905.7992	2671451.5481
24" SANITARY SEWER INTERCEPTER		N 88°18'05" E	299.70'		
MH #15	44+80.63			2119914.6822	2671751.1152
24" SANITARY SEWER INTERCEPTER		N 88°18'05" E	238.27'		
MH #16	47+18.90			2119921.7445	2671989.2785
24" SANITARY SEWER INTERCEPTER		S 82°14'39" E	467.30'		
MH #17	51+86.20			2119858.6816	2672452.3016
24" SANITARY SEWER INTERCEPTER		S 82°48'48" E	76.18'		
MH #18	52+62.38			2119849.1510	2672527.8842
24" SANITARY SEWER INTERCEPTER		N 82°28'30" E	387.92'		
MH #19	56+50.30			2119899.9524	2672912.4631
24" SANITARY SEWER INTERCEPTER		S 87°23'11" E	364.75'		
MH #20	60+15.05			2119883.3189	2673276.8328
24" SANITARY SEWER INTERCEPTER		N 57°23'30" E	433.93'		
MH #21	64+48.97			2120117.1590	2673642.3615
24" SANITARY SEWER INTERCEPTER		N 57°20'46" E	138.48'		
MH #22	65+87.45			2120191.8767	2673758.9522
24" SANITARY SEWER INTERCEPTER		N 39°54'37" E	334.60'		
MH #23	69+22.05			2120448.5305	2673973.6265
24" SANITARY SEWER INTERCEPTER		N 29°12'13" E	304.18'		
MH #24	72+26.23			2120714.0481	2674122.0409
24" SANITARY SEWER INTERCEPTER		N 39°11'34" E	219.35'		
MH #25 - END OF PROJECT	74+45.59			2120884.0520	2674260.6568

NOTES:

PLANS DEPICT THE REPLACEMENT OF THE EXISTING SANITARY SEWER MAIN.

A 60' WIDE TEMPORARY CONSTRUCTION EASEMENT SHALL BE OBTAINED BY THE CITY OF AZTEC (30' EACH SIDE OF THE SAS PIPE AS SHOWN HEREIN).

A 30' WIDE PERMANENT PUBLIC UTILITY EASEMENT SHALL BE OBTAINED BY THE CITY OF AZTEC (15' EACH SIDE OF THE SAS PIPE AS SHOWN HEREIN).



REVISIONS (OR CHANGE NOTICES)	
NO.	DESCRIPTION
7	
6	
5	
4	
3	
2	
1	
NO.	DATE
BY	

Designed By:

HUITT-ZOLIARS

Huitt-Zoliars, Inc. a subsidiary of
533 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

Designed For:

CITY OF AZTEC

UTILITY TITLE SHEET

SANITARY SEWER LINE
AZTEC, NEW MEXICO

11/13/12

PROJECT NO. 17-0788-01

DESIGNED BY: SAE

DRAWN BY: LRT

CHECKED BY: SAE

DATE: NOV. 13, 2012

DPW CHK: -

SHEET:
U1

ATTACHMENT B PLANTS AND WILDLIFE IN THE PROJECT AREA

PLANT SPECIES

Scientific Name	Common Name
Graminoids	
<i>Achnatherum hymenoides</i>	Indian ricegrass
<i>Agropyron cristatum</i>	crested wheatgrass
<i>Agropyron trachycaulum</i>	slender wheatgrass
<i>Beckmannia syzigachne</i>	slough grass
<i>Bouteloua gracilis</i>	blue grama
<i>Bromus inermis</i>	smooth brome
<i>Bromus tectorum</i>	cheatgrass
<i>Carex praegracilis</i>	clustered field sedge
<i>Carex sp.</i>	sedge
<i>Dactylis glomerata</i>	orchard grass
<i>Echinochloa crus-galli</i>	barnyard grass
<i>Elymus canadensis</i>	Canada wildrye
<i>Equisetum arvense</i>	horsetail
<i>Festuca rubra</i>	red fescue
<i>Hordeum jubatum</i>	foxtail barley
<i>Hippochaete hyemalis</i>	scouring rush
<i>Juncus arcticus</i>	wire rush
<i>Juncus torreyi</i>	Torrey's rush
<i>Muhlenbergia asperifolia</i>	scatchgrass
<i>Pascopyrum smithii</i>	western wheat
<i>Phalaris arundinacea</i>	reed canary grass
<i>Phleum pretense</i>	timothy
<i>Phragmites australis</i>	common reed
<i>Pleuraphis jamesii</i>	galleta grass
<i>Poa sp.</i>	bluegrass
<i>Schoenoplectus pungens</i>	three-square
<i>Typha latifolia</i>	broadleaf cattail
Forbs	
<i>Asclepias speciosa</i>	showy milkweed
<i>Aster spp.</i>	aster
<i>Bassia scoparia</i>	kochia
<i>Carduus nutans</i>	musk thistle
<i>Centaurea repens</i>	Russian knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Conyza canadensis</i>	Canadian horseweed
<i>Erigeronum sp.</i>	wild buckwheat

<i>Erodium cicutarium</i>	redstem filaree
<i>Glycyrrhiza lepidota</i>	wild licorice
<i>Helianthus annuus</i>	sunflower
<i>Medicago sativa</i>	alfalfa
<i>Melilotus officinalis</i>	yellow sweet clover
<i>Plantago lanceolata</i>	lanceleaf plantain
<i>Plantago major</i>	broadleaf plantain
<i>Rumex crispus</i>	curly dock
<i>Sisymbrium altissimum</i>	tall tumble mustard
<i>Solidago canadensis</i>	Canada goldenrod
<i>Taraxacum officinale</i>	dandelion
<i>Trifolium pratense</i>	red clover
<i>Verbascum thapsus</i>	common mullein
Shrubs	
<i>Artemisia frigida</i>	pasture sagebrush
<i>Atriplex canescens</i>	fourwing saltbush
<i>Ephedra torreyana</i>	Mormon tea
<i>Ericameria nauseosa</i>	rubber rabbitbrush
<i>Padus virginiana</i>	chokecherry
<i>Rhus trilobata</i>	skunkbush sumac
<i>Rosa woodsii</i>	Woods' rose
<i>Salix exigua</i>	coyote willow
<i>Sarcobatus vermiculatus</i>	greasewood
Trees	
<i>Acer negundo</i>	box elder
<i>Elaeagnus angustifolia</i>	Russian-olive
<i>Juniperus scopulorum</i>	Rocky Mt. juniper
<i>Populus fremontii</i>	Fremont cottonwood
<i>Ulmus pumila</i>	Siberian elm
Vines	
<i>Clematis ligusticifolia</i>	western white clematis
<i>Toxicodendron rydbergii</i>	western poison ivy

WILDLIFE SPECIES

Scientific Name	Common Name
Mammals	
<i>Cynomys gunnisoni</i>	Gunnison's prairie dog
<i>Mephitis mephitis</i>	striped skunk
<i>Odocoileus hemionus</i>	mule deer
<i>Procyon lotor</i>	raccoon
<i>Sylvilagus sp.</i>	cottontail rabbit
<i>Urocyon cinereoargenteus</i>	gray fox
Birds	
<i>Branta canadensis</i>	Canada goose

<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Circus cyaneus</i>	northern harrier
<i>Corvus corax</i>	common raven
<i>Haliaeetus leucocephalus</i>	bald eagle
<i>Junco hyemalis</i>	dark-eyed junco
<i>Passer domesticus</i>	house sparrow
<i>Pica pica</i>	black-billed magpie
<i>Picoides pubescens</i>	downy woodpecker
<i>Pipilo maculatus</i>	spotted towhee
<i>Zenaida macroura</i>	mourning dove

ATTACHMENT C

PHOTO DOCUMENTATION

CITY OF AZTEC SEWER OUTFALL LINE

(Photos taken 12/10/09 & 12/11/09 by PH & NK)

Photos progress from east to west along the sewer easement



Photo 1: Sewer Alignment looking SW under bridges near eastern terminus of project Elledge Mill Ditch (EMD) at left.



Photo 3: View of sewer alignment looking SW into Wetland-2, which is dominated by *Salix exigua* and *Phragmites australis*.



Photo 2: Sewer alignment looking SW from same location as photo 2, EMD at left, steep terrace hillside at right.



Photo 4: View of sewer alignment looking SW into terrace slope *Rosa woodsii* (red shrub) and *Rhus trilobata* (tall grey).



Photo 5: Panoramic view looking SE to SW at 10 acre willow/cottonwood complex located adjacent to the south side of the sewer easement which tightly parallels the EMD in middle of photo.



Photo 6: View of sewer alignment looking E. EMD at right.



Photo 7: View of sewer alignment looking N along South Oliver Ave. near the western terminus.

BIOLOGICAL ASSESSMENT ADDENDUM

City of Aztec Sanitary Sewer Interceptor Improvements

ASSESSMENT OF CURRENT CONSERVATION STATUSES FOR SPECIES PROTECTED UNDER THE ENDANGERED SPECIES ACT

JANUARY 2016

INTRODUCTION

In 2013, a Biological Assessment (BA) was prepared for the construction of a replacement sewer line in the City of Aztec (City), San Juan County, New Mexico. The 2013 BA addressed project related impacts that may result from the proposed action on species listed under the Endangered Species Act of 1973 (ESA) (16 US Code 1531 *et seq.*), or candidates for listing under the ESA, at the time of the BA. Subsequent to the completion of the 2013 BA, the conservation status of species assessed in the BA have changed, and additional species protected or potentially protected under Section 7 of the ESA have been added. In addition, there have been slight changes to the proposed action.

This addendum addresses possible effects of the currently proposed action on current federally listed threatened, endangered, proposed, and candidate species or designated or proposed critical habitats not assessed in the 2013 BA. The 2013 BA is on file with the New Mexico Environment Department (NMED); the project contact is Mr. David Bishop.

CONSULTATION TO DATE

A list of federally-listed threatened, endangered, proposed, and candidate species that could be affected by the project was generated on December 16, 2015 utilizing the U.S. Fish and Wildlife Service (USFWS) on-line Information, Planning, and Conservation decision support system ECOS-IPaC website. The list identified 11 species that may occur and/or be affected by the project (Consultation code: 02ENNM00-2016-SLI-0202). This list of species meets the requirements of Section 7(c) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*). This species list differs from that considered in the 2013 BA as described below.

SME has previously consulted the USFWS New Mexico Ecological Field Services Office with regard to the southwestern willow flycatcher (*Empidonax traillii extimus*) (D. Hill, 2013) and the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) (E. Hein, 2016). Informal consultation included phone calls and emails to discuss the habitat suitability of the project area and potential effects. Communications are on file with the NMED.

CHANGES IN SPECIES CONSIDERED AND SPECIES STATUS

Threatened and Endangered Species

USFWS consultation indicates that the following species have been listed, or considered for listing, under the ESA since the preparation of the 2013 BA and have potential to occur in San Juan County, NM:

- New Mexico meadow jumping mouse (*Zapus hudsonius luteus*); listed as Endangered, Federal Register 79:111 (June 10, 2014),
- Zuni bluehead sucker (*Catostomus discobolus yarrowi*); listed as Endangered, Federal Register 79:142 (July 24, 2014),
- Canada lynx (*Lynx canadensis*); Threatened distinct population segment range extended to include New Mexico, Federal Register 79:177 (September 12, 2014), and
- Yellow-billed cuckoo (*Coccyzus americanus*); western distinct population segment (DPS) listed as Threatened, Federal Register 79:192 (October 3, 2014).

USFWS consultation indicates that the following species is considered to have potential to occur in San Juan County that was not addressed in the 2013 BA:

- Sprague's pipit (*Anthus spragueii*); candidate for listing.

USFWS consultation indicates that the following species are no longer considered to have potential to occur in San Juan County, NM:

- Black footed ferret (*Mustela nigripes*), endangered,
- Mexican spotted owl (*Strix occidentalis lucida*), threatened,
- Whooping crane (*Grus americana*), experimental population, and
- Roundtail chub (*Gila robusta*), proposed threatened.

The Zuni bluehead sucker, yellow-billed cuckoo, and Sprague's pipit lack potential to occur in or near the project area. The project area is outside the range of the Zuni bluehead sucker, the Zuni River drainage basin of Arizona and New Mexico (Carman 2004). As described in the 2013 BA, there is no significant riparian woodland with a cottonwood canopy and dense understory shrubbery in the action area to support the yellow-billed cuckoo. Sprague's pipit may winter in New Mexico on native, and possibly non-native, grasslands with a grass height of 4 to 12 inches (USFWS 2014a). No such grassland habitat occurs in the action area to support Sprague's pipit. The proposed action would have no effect on the Zuni bluehead sucker, yellow-billed cuckoo, and Sprague's pipit, and the species will not be considered further.

Potential habitat occurs in the action area for the New Mexico Meadow Jumping Mouse (NMMJM).

Critical Habitat

No critical habitat has been designated in or near the project area.

DESCRIPTION OF THE PROPOSED ACTION

The proposed project is as described in the 2013 BA (Figure 1), with the following exceptions. The eastern terminus of the project has been extended 166 feet to the northeast (Figure 3). In addition, the alignment has been relocated to follow the length of Western Dr. and a short (120-foot) spur parallels the new line at Riverview Park (Figure 3). No boring will be employed; all of the line installation will be accomplished through open trenching. The total surface area for the proposed easement would be approximately 9.83 acres.

In conjunction with the sewer line installation, a new water line will be constructed immediately adjacent to the sewer line from the treatment plant east approximately 3,700 feet. The water line would be 6 inches in diameter. Also, a 40-foot long six-foot by 8-foot concrete box culvert would be installed within S. Oliver Ave. in the project area where S. Oliver Ave. crosses over the Elledge Mill Ditch.

SPECIES EVALUATED

New Mexico Meadow Jumping Mouse

Species Description

The following species description is compiled from the *Species Status Assessment Report; New Mexico meadow jumping mouse* (*Zapus hudsonius luteus*) prepared by the USFWS in May of 2014 (USFWS 2014b).

The NMMJM is dark yellowish brown, dark brown, and grayish-brown on the back, yellowish brown on the sides, and white underneath. The subspecies grows to about 7.1 to 9.2 inches in total length, with elongated feet (1.2 inches) and an extremely long, bi-colored tail (4.9 inches).

The NMMJM is active only during the warm growing season of the grasses and forbs on which it depends. The NMMJM is a true hibernator, usually entering hibernation in September or October and emerging the following May or June. The jumping mouse hibernates about 8 or 9 months out of the year, longer than most mammals. Following hibernation, jumping mice must breed, rear their young, and then accumulate sufficient fat reserves to sustain them through hibernation. The lifespan of the NMMJM is likely no longer than 3 years, with an average lifespan of less than 1 year.

The NMMJM is a habitat specialist; the NMMJM requires dense riparian herbaceous vegetation and adjacent uplands that can support the vegetation characteristics needed by foraging, breeding, and hibernating jumping mice. Although the NMMJM commonly uses riparian vegetation immediately adjacent to a perennial stream, other features that may provide habitat for the NMMJM likely include: seasonal streams; wetland or marshes that contain areas of saturated soils, but no visible running water; agricultural ditches and canals; and wet meadows or seeps, sometimes in association with beaver (*Castor canadensis*) complexes.

The species specialized habitat requirements are characterized by tall (average stubble height of herbaceous vegetation of at least 27 inches and dense riparian herbaceous vegetation (cover averaging at least 24 vertical inches that may only be met when herbaceous vegetation achieves its full potential growth. The herbaceous vegetation is composed primarily of sedges (*Carex* spp. or *Schoenoplectus pungens*) and forbs. Suitable habitat should contain sufficient seasonally available flowing waters to support the growth of tall, dense, riparian herbaceous plants that provide a wide variety of food and cover for nesting, movement, and to avoid predation.

For hibernation and rearing of young, the NMMJM nests in dry soils in close proximity to the moist, dense riparian or wetland herbaceous vegetation they primarily use.

SITE CONDITIONS

General site conditions within the action area are described in Section 4 of the 2013 BA. The project area was re-evaluated on September 18, 2014, December 4, 2015, and January 5, 2016. Site conditions have not changed significantly since the 2013 BA. There have been no widespread degradations to habitat within the project area such as large scale developments, wildfire, severe drought, or other similar changes that could have altered the ecosystems described in the 2013 BA.

New Mexico Meadow Jumping Mouse

The Elledge Mill Ditch, a seasonally operated irrigation canal, and the Animas River, a perennial stream, are the main water features located within the action area. Wetlands supported by the Animas River are primarily woody, and where herbaceous, do not support a prevalence of sedges. No suitable NMMJM habitat occurs along the Animas River.

Elledge Mill Ditch supports fringing herbaceous wetlands that in areas support a prevalent sedge component that approaches two feet in height. These sedge areas occur in narrow linear strips along the south bank of the ditch at the water's edge (Attachment A). The proposed sewer line in these areas is located north of the Elledge Mill Ditch. The sedge strips range in width from two to eight feet wide, averaging between two and three feet wide. Immediately south of this habitat is a gravel road. South of the gravel road is a mix of riparian shrubland, cattail marsh, and intermixed areas of bare soils and lawn grass associated with Riverview Park.

While sedge areas do occur in the action area, the characteristics of this habitat do not provide ideal conditions for NMMJM and would be described as marginal at best (Eric Hein, per. comm., Jan. 19, 2016). Where sedges occur along Elledge Mill Ditch, they create an almost monotypic community, lacking a variety of forbs and other plants necessary for adequate forage. The sedge habitat is not located in close proximity to other herbaceous areas that provide additional suitable foraging habitat. The sedge habitat along the ditch is located partly along the near vertical banks of the ditch. Only those areas that are within 12 to 18 inches of the water level have saturated soils (due to capillary action), which are a component of suitable habitat (Eric Hein, per. comm., Jan. 19, 2016). The sedge habitat along Elledge Mill Ditch is very narrow and likely does not provide adequate NMMJM escape and cover habitat. Sedges along the ditch are also relatively

short in stature, just meeting the minimum height in the tallest areas. Due to the urbanized setting, it is unlikely that there is any connectivity with any other suitable habitat.

EFFECTS OF THE PROPOSED ACTION

The determination of effects to species discussed in the 2013 BA that are not discussed herein (Canada lynx, southwestern willow flycatcher, yellow-billed cuckoo, Colorado pikeminnow, razorback sucker, Knowlton's cactus, Mancos milkvetch, and Mesa Verde cactus) remain valid; the habitat and the baseline level of disturbance in the action area have not changed in any noticeable way since the 2013 BA was prepared.

New Mexico Meadow Jumping Mouse

The proposed sewer line improvements project would have **no effect** on the NMMJM. While elements of suitable habitat occur in the action area, which includes portions of the sewer easement, habitat is not suitable to support NMMJM. Saturated soils are limited to the immediate ditch bank, which is nearly vertical; sedges have limited vertical density due to short height; sedge width is very narrow, reducing horizontal cover; and there is no connectivity to adjacent suitable habitat including foraging habitat. Due to these limiting factors, it is unlikely that the action area could support the NMMJM.

CONSULTATION AND COORDINATION

USFWS Information, Planning, and Conservation System
New Mexico Ecological Services Field Office
2105 Osuna Road NE
Albuquerque, NM 87113

Eric Hein, Biologist
US Fish and Wildlife Service
New Mexico Ecological Services Field Office
2105 Osuna Road NE
Albuquerque, NM 87113

LIST OF PREPARERS

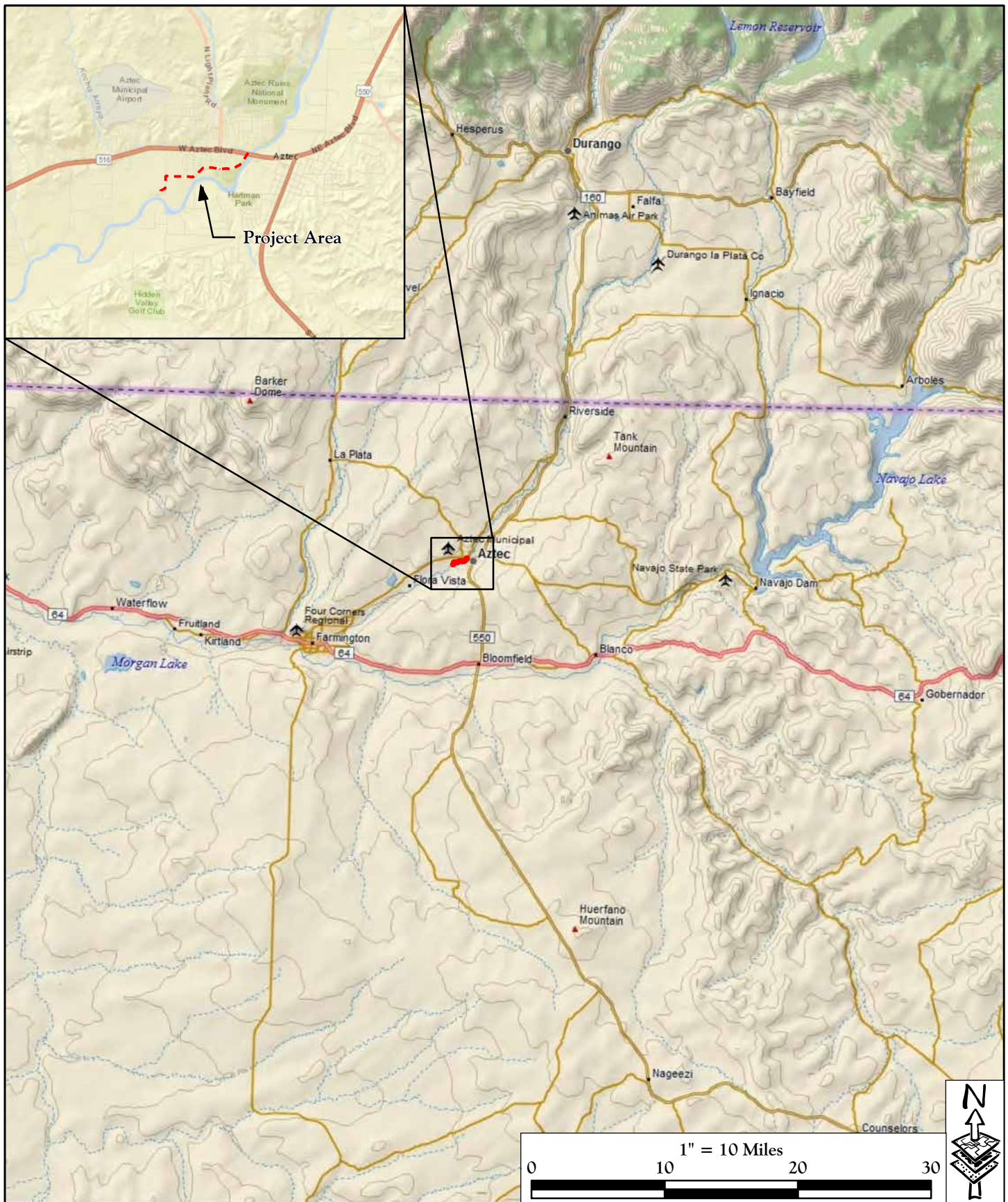
Mr. Nathan Kirker, Biologist
Ms. Kerrianne Zdimal, Senior Regulatory Specialist


REFERENCES – CITED AND GENERAL

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FIGURE 1	Road/Vicinity Map
FIGURE 2	Project Location Map
FIGURE 3	Aerial Site Map
FIGURE 4	NRCS Soils Map



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	ROAD/VICINITY MAP	FIGURE 1
	AZTEC SEWER IMPROVEMENTS BIOLOGICAL ASSESSMENT	Sources: ESRI, DeLorme, AND, Tele Atlas, First American, ESRI Japan, UNEP/WCMC, USGS, METI, ESRI Hong Kong, ESRI Thailand, Procalcuto Prosis

PROJECT LOCATION:

Township 30 North, Range 11 West,
Sections 8, 9, and 17,
NMPM, San Juan County, New Mexico.

Western Terminus:

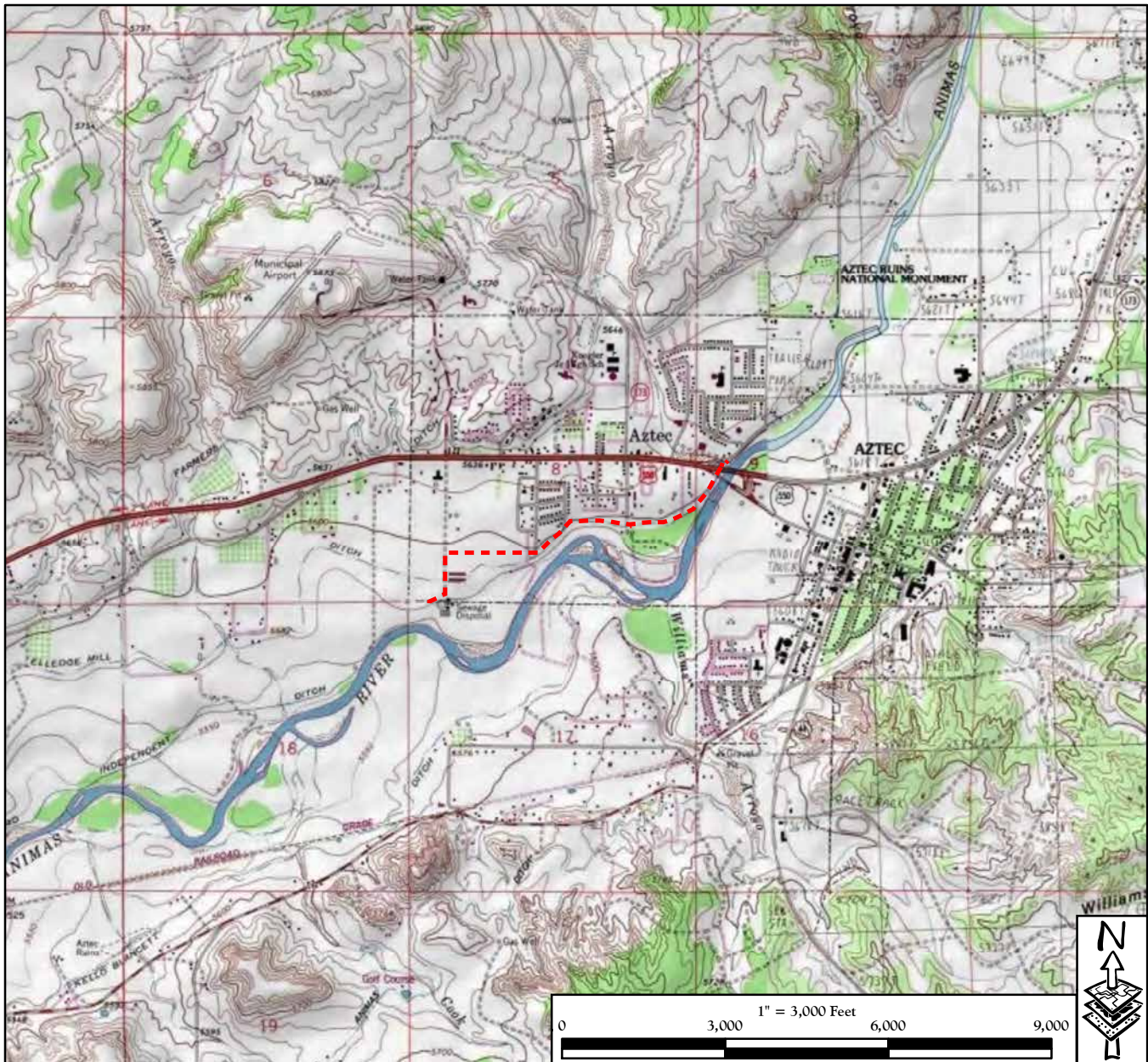
Lat: 36.8195° N Long: 108.0217° W

Eastern Terminus:

Lat: 36.8267° N Long: 108.0030° W

Legend

----- Proposed Sewer Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595


PROJECT LOCATION MAP

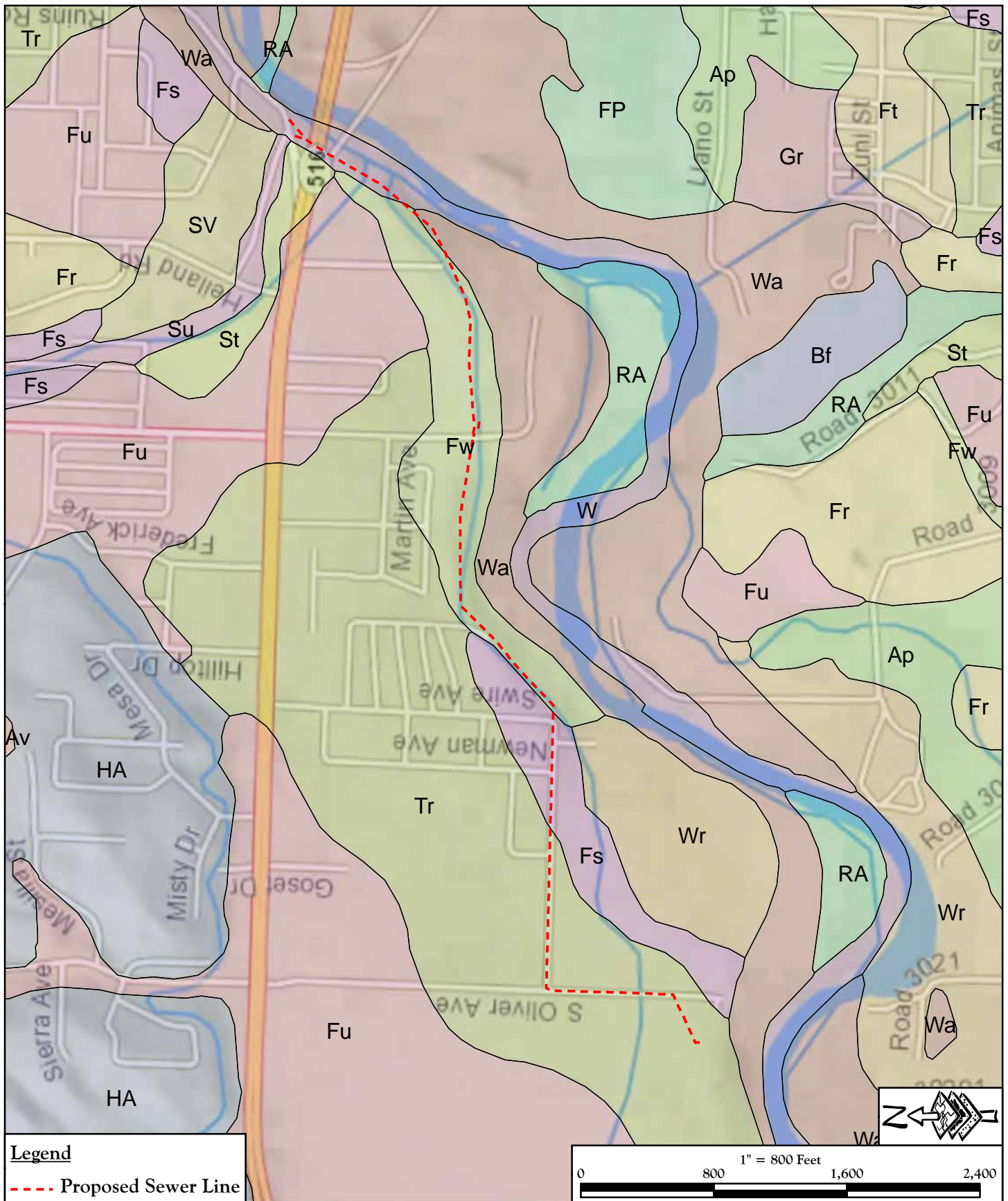
AZTEC SEWER IMPROVEMENTS
BIOLOGICAL ASSESSMENT


FIGURE 2

Source: Aztec & Flora Vista, New Mexico
7.5' USGS Quadrangles
Copyright: © 2010 National Geographic Society



 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	<p>AERIAL SITE MAP</p> <p>AZTEC SEWER IMPROVEMENTS BIOLOGICAL ASSESSMENT</p>	<p>FIGURE 3</p> <p>Source: Esri, DigitalGlobe, GeoEye, Earthstar, Getmapping, CNES/Airbus, USDA, USGS, AEX, Aerogrid, IGN, IGP, swissmap.</p>
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 <p>679 E. 2nd Ave. - Unit E2 Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	SOILS MAP	FIGURE 4
	AZTEC SEWER IMPROVEMENTS BIOLOGICAL ASSESSMENT	Source: National Geographic, Esri, DeLorme, HERE, UNEP, WCMC, USGS.

ATTACHMENT A
Photo Documentation – Sedge Habitat

Select Photos from January 2016 and September 2014 Field Investigations

Photos taken by Nathan Kirker- SME Biologist



Photo 1: Taken from within Elledge Mill Ditch facing northeast. Note sedge dominated vegetation along the right bank of the ditch. The vertical distance between the bankfull height of the ditch and the top of the ditch bank is approximately two feet, and is indicated by the vertical height of the sedge vegetation along the bank.

Select Photos from January 2016 and September 2014 Field Investigations

Photos taken by Nathan Kirker- SME Biologist



Photo 2: Same location as Photo 1 facing southeast. Note scour line below sedges that indicates the bankfull height.

Select Photos from January 2016 and September 2014 Field Investigations

Photos taken by Nathan Kirker- SME Biologist



Photo 3: Same location as Photo 1 facing southeast along the bank of Elledge Mill Ditch. Note the proximity of the road following the ditch to the ditch itself, limiting the extent of the sedge. Note that habitat to the left of the road is a mix of cattail marsh and willow shrubland.

Select Photos from January 2016 and September 2014 Field Investigations

Photos taken by Nathan Kirker- SME Biologist



Photo 4: Same location as Photo 1 facing northeast. Again, note narrow extent of sedge habitat.

Select Photos from January 2016 and September 2014 Field Investigations

Photos taken by Nathan Kirker- SME Biologist



Photo 5: This photo is similar to Photo 4 (note bridge in background), but shot from slightly farther to the southeast. This photo is facing northeast and illustrates the sedge habitat at the height of the growing season. Note the elevation of the water in the ditch. Note that the while some sedges are likely two feet tall, the vertical height of dense herbaceous vegetation is much lower, below two feet tall. Also note that the ground can be seen through the sedge in areas indicating poor density.

APPENDIX D

Archaeological Survey Reports

CULTURAL RESOURCE INVENTORY FOR THE CITY OF AZTEC SEWER OUTFALL LINE IN SAN JUAN COUNTY, NEW MEXICO

By
Jesse Murrell

Prepared for:

SME Environmental, Inc.
555 Rivergate Lane B1-101
Durango, Colorado 81301

On behalf of:

City of Aztec
303 South Ash Street
Aztec, New Mexico 87410

Submitted to:

New Mexico Environment Department
and
New Mexico Department of Transportation
Environmental Design Division

Submitted by:

Jesse B. Murrell, RPA
Principal Investigator
El Morro CRM, LLC
P.O. Box 6427
Farmington, New Mexico 87499

New Mexico General Archaeological Investigation Permit Number NM-12-224-S



Report Number 2012-SME-01
October 2012

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 125442	2a. Lead (Sponsoring) Agency: New Mexico Environment Department	2b. Other Permitting Agency(ies): New Mexico Department of Transportation	3. Lead Agency Report No.:									
4. Title of Report: Cultural Resource Inventory for the City of Aztec Sewer Outfall Line in San Juan County, New Mexico Author(s) Jesse Murrell			5. Type of Report <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Positive									
6. Investigation Type <input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other												
7. Description of Undertaking (what does the project entail?): The City of Aztec proposes to construct a 7192 foot (ft; 2192 meter [m]) replacement sewer line within a 60-ft-wide (18-m-wide) easement. The replacement sewer line will be within the easement of the existing sewer line. Approximately 1680 ft (512 m) of the line would be bored underground to avoid surface resources and excess surface disturbance. Since the installation of the original sewer line, buildings at A-1 Mini Storage located at 600 South Oliver Drive have been constructed over the existing sewer line. The proposed sewer line will be re-routed around A-1 Mini Storage, leaving the existing sewer line located under the buildings in place. The area of potential effect (APE) measures 10.0 acres (ac; 4.0 hectares [ha]). Construction of the proposed sewer line will require clearing of a right-of-way, developing temporary use areas within the easement, trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Mechanical equipment will be used during all phases of construction.		8. Dates of Investigation: 30 September 2012 9. Report Date: 13 October 2012										
10. Performing Agency/Consultant: El Morro CRM, LLC Principal Investigator: Jesse Murrell Field Supervisor: Jesse Murrell Field Personnel Names:		11. Performing Agency/Consultant Report No.: El Morro CRM Report Number 2012-SME-01 12. Applicable Cultural Resource Permit No(s): New Mexico General Archaeological Investigation Permit Number 236-2920-12-C										
13. Client/Customer (project proponent): SME Environmental, Inc. Address: 555 Rivergate Lane, B1-101, Durango, CO 81301 Phone: (970) 259-9595		14. Client/Customer Project No.:										
15. Land Ownership Status (<u>Must</u> be indicated on project map): <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 50%;">Land Owner</th> <th style="width: 25%;">Acres Surveyed</th> <th style="width: 25%;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td>Private and Municipal</td> <td style="text-align: center;">26.8</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td style="text-align: right;">TOTALS</td> <td style="text-align: center;">26.8</td> <td style="text-align: center;">10.0</td> </tr> </tbody> </table>				Land Owner	Acres Surveyed	Acres in APE	Private and Municipal	26.8	10.0	TOTALS	26.8	10.0
Land Owner	Acres Surveyed	Acres in APE										
Private and Municipal	26.8	10.0										
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16. Records Search(es): <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 40%;">Date(s) of ARMS File Review 30 September 2012</td> <td style="width: 30%;">Name of Reviewer(s) Jesse Murrell</td> <td style="width: 30%;"></td> </tr> <tr> <td>Date(s) of NR/SR File Review 30 September 2012</td> <td>Name of Reviewer(s) Jesse Murrell</td> <td></td> </tr> <tr> <td>Date(s) of Other Agency File Review</td> <td>Name of Reviewer(s)</td> <td>Agency</td> </tr> </table>				Date(s) of ARMS File Review 30 September 2012	Name of Reviewer(s) Jesse Murrell		Date(s) of NR/SR File Review 30 September 2012	Name of Reviewer(s) Jesse Murrell		Date(s) of Other Agency File Review	Name of Reviewer(s)	Agency
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Date(s) of NR/SR File Review 30 September 2012	Name of Reviewer(s) Jesse Murrell											
Date(s) of Other Agency File Review	Name of Reviewer(s)	Agency										

17. Survey Data: a. Source Graphics <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> USGS 7.5' (1:24,000) topo map <input type="checkbox"/> Other topo map, Scale: <input checked="" type="checkbox"/> GPS Unit Accuracy <input type="checkbox"/> <1.0m <input checked="" type="checkbox"/> 1-10m <input type="checkbox"/> 10-100m <input type="checkbox"/> >100m	
b. USGS 7.5' Topographic Map Name USGS Quad Code <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> Flora Vista, New Mexico 36108-G1 </div>	
c. County(ies): San Juan County, New Mexico	

17. Survey Data (continued): d. Nearest City or Town: Aztec, New Mexico e. Legal Description:																																									
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Township (N/S)</th> <th>Range (E/W)</th> <th>Section</th> <th>1/4 1/4 1/4</th> </tr> </thead> <tbody> <tr><td>30N</td><td>11W</td><td>8</td><td>S 1/2 SW SW</td></tr> <tr><td>30N</td><td>11W</td><td>8</td><td>NE SW SW</td></tr> <tr><td>30N</td><td>11W</td><td>8</td><td>N 1/2 SE SW</td></tr> <tr><td>30N</td><td>11W</td><td>8</td><td>NW SW SE</td></tr> <tr><td>30N</td><td>11W</td><td>8</td><td>S 1/2 NW SE</td></tr> <tr><td>30N</td><td>11W</td><td>8</td><td>S 1/2 NE SE</td></tr> <tr><td>30N</td><td>11W</td><td>9</td><td>W 1/2 NW SW</td></tr> <tr><td>30N</td><td>11W</td><td>9</td><td>SW SW NW</td></tr> <tr><td>30N</td><td>11W</td><td>17</td><td>NW NW NW</td></tr> </tbody> </table>	Township (N/S)	Range (E/W)	Section	1/4 1/4 1/4	30N	11W	8	S 1/2 SW SW	30N	11W	8	NE SW SW	30N	11W	8	N 1/2 SE SW	30N	11W	8	NW SW SE	30N	11W	8	S 1/2 NW SE	30N	11W	8	S 1/2 NE SE	30N	11W	9	W 1/2 NW SW	30N	11W	9	SW SW NW	30N	11W	17	NW NW NW	<p>Projected legal description? Yes [], No [X] Unplatted []</p> <p>f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):</p>
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30N	11W	9	SW SW NW																																						
30N	11W	17	NW NW NW																																						

18. Survey Field Methods: Intensity: <input checked="" type="checkbox"/> 100% coverage <input type="checkbox"/> <100% coverage Configuration: <input type="checkbox"/> block survey units <input checked="" type="checkbox"/> linear survey units (l x w): 7352 by 160 ft <input type="checkbox"/> other survey units (specify): Scope: <input checked="" type="checkbox"/> non-selective (all sites recorded) <input type="checkbox"/> selective/thematic (selected sites recorded) Coverage Method: <input checked="" type="checkbox"/> systematic pedestrian coverage <input type="checkbox"/> other method (describe) Survey Interval (m): 15 m Crew Size: 1 Fieldwork Dates: 30 September 2012 Survey Person Hours: 4 Recording Person Hours: 4 Total Hours: 8 Additional Narrative: The APE consisted of a proposed 7192 ft of sewer outfall line surrounded by a 30-ft buffer for an easement with a total width of 60 ft. The survey area included a 50-ft buffer of the APE for a total width of 160 ft.	
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19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.): The project area is located within the City of Aztec, New Mexico between the Animas River to the south and US 550 to the north and between Oliver Street to the west and the Chaco Street bridge or "Money Saving" bridge to the east. The proposed line follows the Elledge Mill ditch for much of its course. It is situated at elevations ranging between 5700 and 5780 ft (1737 and 1762 m) above mean sea level on the gentle south-facing slope of the northern terrace of the Animas River above the floodplain. Arroyo-dissected mesas and ridges lie to the north. The project area falls roughly between the confluences of Estes Arroyo and Kochis Arroyo with the Animas River. The surface geologic map units of area include Holocene alluvium and Pleistocene terrace gravels. NRCS classifies the soils as Fruitland loam, Walrees loam, Werlog loam, Fruitland sandy loam, and Turley clay loam from roughly the northeast to the southwest across the project area. The area falls within a urban/farmland/open waters vegetative community. Observed vegetation includes Fremont cottonwood, elm, Russian olive, salt cedar, rabbitbrush, sagebrush, saltbush, Russian thistle, cattail, blackeyed Susan, and cheatgrass.	
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20a. Percent Ground Visibility: 70 to 0 percent and impassable b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): The survey area has been impacted by land development associated with the growth of the City of Aztec.	
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21. CULTURAL RESOURCE FINDINGS <input checked="" type="checkbox"/> Yes, See Page 3 <input type="checkbox"/> No, Discuss Why:	
---	--

22. Required Attachments (check all appropriate boxes): <input checked="" type="checkbox"/> USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn <input checked="" type="checkbox"/> Copy of NMCRIS Mapserver Map Check <input type="checkbox"/> LA Site Forms - new sites (<i>with sketch map & topographic map</i>) <input checked="" type="checkbox"/> LA Site Forms (update) - previously recorded & un-relocated sites (<i>first 2 pages minimum</i>) <input type="checkbox"/> Historic Cultural Property Inventory Forms <input type="checkbox"/> List and Description of isolates, if applicable <input type="checkbox"/> List and Description of Collections, if applicable	23. Other Attachments: <input type="checkbox"/> Photographs and Log <input checked="" type="checkbox"/> Other Attachments <i>(Describe):</i> Historic Water Delivery System Inventory (HWDSIF) Form for the Elledge Mill ditch (LA 68214)
---	---

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Jesse B. Murrell, RPA

Signature _____

Date 13 October 2012 **Title (if not PI):**

25. Reviewing Agency:
Reviewer's Name/Date

Accepted () Rejected ()

Tribal Consultation (if applicable): ☐ Yes ☐ No

26. SHPO
Reviewer's Name/Date:

HPD Log #:

SHPO File Location:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 125442	2. Lead (Sponsoring) Agency: New Mexico Environment Department	3. Lead Agency Report No.:
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SURVEY RESULTS:

Sites discovered and registered: 0

Sites discovered and NOT registered: 0

Previously recorded sites revisited (*site update form required*): 2

Previously recorded sites not relocated (*site update form required*): LA 15235

TOTAL SITES VISITED: 2

Total isolates recorded: 0 **Non-selective isolate recording?** ☒

Total structures recorded (*new and previously recorded, including acequias*): 2

MANAGEMENT SUMMARY

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the survey. Site LA 68214 is an in-use segment of the Elledge Mill ditch. The ditch was updated using a Historic Water Delivery System Inventory Form (HWDSIF) rather than a Laboratory of Anthropology (LA) site record. Prior to this recording, it appears that a HWDSIF had not been completed for the resource. During the most recent previous recording, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation. Site LA 122905 is the in-use Chaco Street bridge (New Mexico Department of Transportation [NMDOT] Bridge No. 119) over the Animas River. A State Historic Preservation Office (SHPO) determination of eligibility (DOE) for site LA 122905 was made on 16 May 2008. The site was determined to be eligible for listing in the NRHP under Criteria A and C. There was no reason to reevaluate the SHPO DOE.

A single previously recorded site—LA 15235—was not relocated in the current survey area. The site was originally encountered in an area currently occupied by the Aztec Wastewater Treatment Facility. During the most recent previous update (NMCRIS Activity No. 104774), no surface manifestation of the site was observed and the recorder offered no treatment recommendations for a wastewater facilities improvement project. NRHP eligibility was not determined. During construction for the improvements to the facility, prehistoric human remains were discovered within or in close proximity to the site. The remains were reinterred at site LA 168259 (NMCRIS Activity No. 118867). During the current investigation, no surface manifestation of the site was observed. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

The proposed undertaking crosses New Mexico Department of Transportation (NMDOT) right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and SRCP listing; however, the NMDOT Environmental Design Division did not require an evaluation of eligibility during the current investigation.

The proposed undertaking should have *no adverse effect* on historic properties if the recommendations offered below are followed. The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. Construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. This is also the case with NMDOT bridges 6219 and 6220. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered. Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two prehistoric sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. The archaeologist should also monitor all initial ground-disturbing construction activities within LA 15235 and the Aztec Wastewater Treatment Facility. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted for guidance concerning the treatment of the resource.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)
68214		Y, Criteria A and C
122905		Y, Criteria A and C

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INTRODUCTION

On 24 September 2012, SME Environmental, Inc. on behalf of the City of Aztec requested that El Morro CRM, LLC (El Morro) complete a cultural resource inventory for the proposed construction of the Aztec sewer outfall line. The project area falls on private and municipal land in the City of Aztec, New Mexico. The project is sponsored by state funding procured from the New Mexico Environment Department. The New Mexico Cultural Properties Act [18-6-1 NMSA] provides for the preservation and protection of cultural properties in manner conforming with the National Historic Preservation Act as amended (NHPA). Section 18-6-8.1 requires state agencies to provide the State Historic Preservation Office (SHPO) with an opportunity to participate in the planning of undertakings to avoid or minimize adverse effects on properties listed on the State Register of Cultural Properties and National Register of Historic Places (NRHP). The purpose of the inventory, which consists of a records review and pedestrian survey, was to identify historic properties within or adjacent to the area of potential effect (APE), assess eligibility for listing on the NRHP, and make recommendations regarding potential effect.

The project area is located within the City of Aztec, New Mexico between the Animas River to the south and US 550 to the north and between Oliver Street to the west and the Chaco Street bridge to the east. The area is depicted on the United States Geological Survey (USGS) 7.5-minute topographic quadrangle of Flora Vista, New Mexico (36108-G1) in Sections 8, 9, and 17 of Township 30 North and Range 11 West, New Mexico Principal Meridian.

The City of Aztec proposes to construct a 7192 foot (ft; 2192 meter [m]) replacement sewer line within a 60-ft-wide (18-m-wide) easement. The replacement sewer line will be within the easement of the existing sewer line. Approximately 1680 ft (512 m) of the line would be bored underground to avoid surface resources and excess surface disturbance. Since the installation of the original sewer line, buildings at A-1 Mini Storage located at 600 South Oliver Drive have been constructed over the existing sewer line. The proposed sewer line will be re-routed around A-1 Mini Storage, leaving the existing sewer line located under the buildings in place. The area of potential effect (APE) measures 10.0 acres (ac; 4.0 hectares [ha]). Construction of the proposed sewer line will require clearing of a right-of-way, developing temporary use areas within the easement, trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Mechanical equipment will be used during all phases of construction.

El Morro Principal Investigator Jesse Murrell completed an internet-based review of New Mexico Cultural Resource Information System (NMCRIS) records on 30 September 2012. Murrell completed the pedestrian survey on the same date. The survey area consisted of the APE with a 50-ft-wide (15-m-wide) buffer. In total, the survey area measured 26.8 ac (10.8 ha).

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the survey. Site LA 68214 was recommended to be NRHP eligible under Criteria A and C. The State Historic Preservation Office (SHPO) determined that site LA 122905 was eligible for listing in the NRHP under Criteria A and C. A single previously recorded site—LA 15235—was not relocated in the current survey area. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined. The

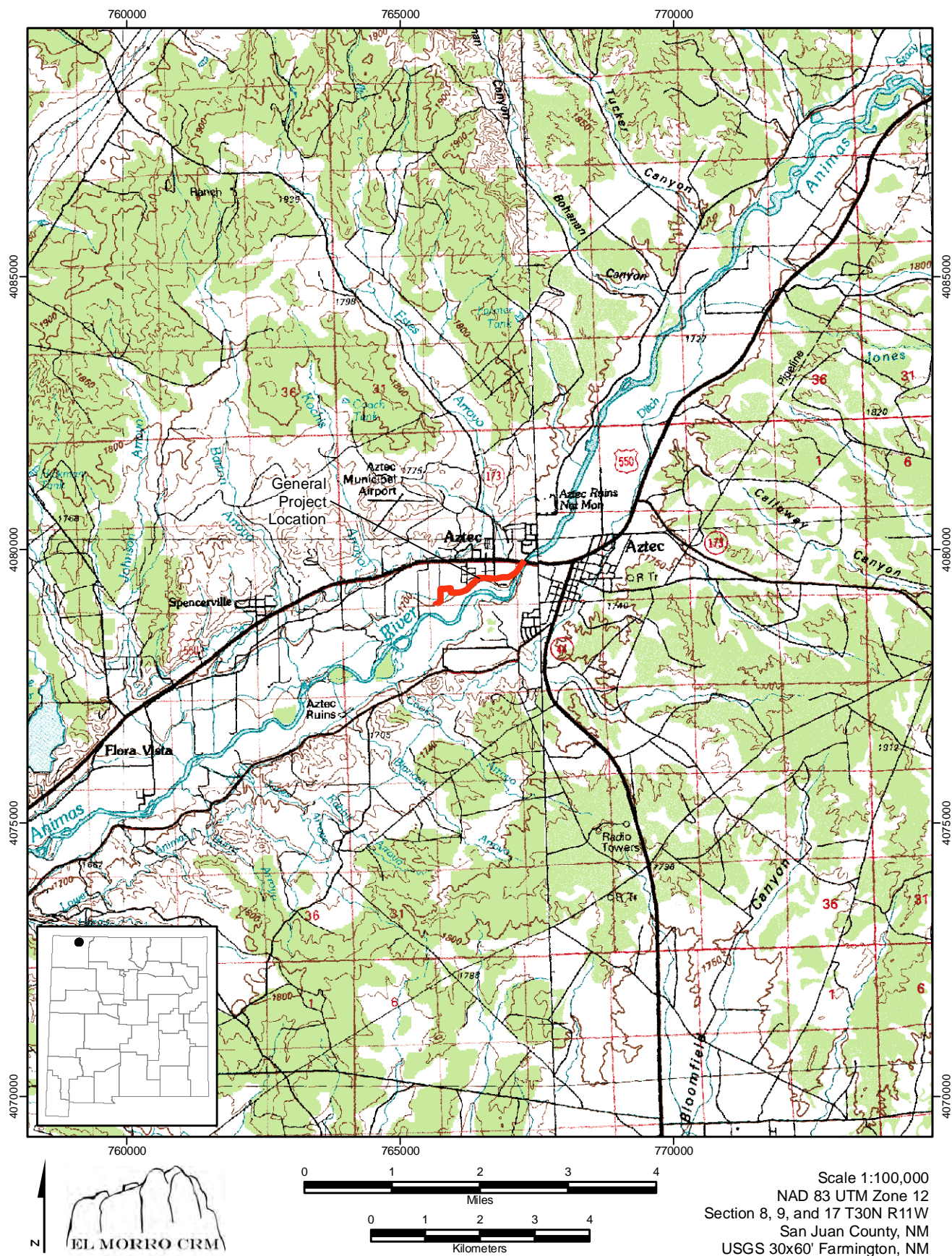


Figure 1. Aztec Sewer Outfall Line (NMCRIS No. 125442) General Project Location Map.

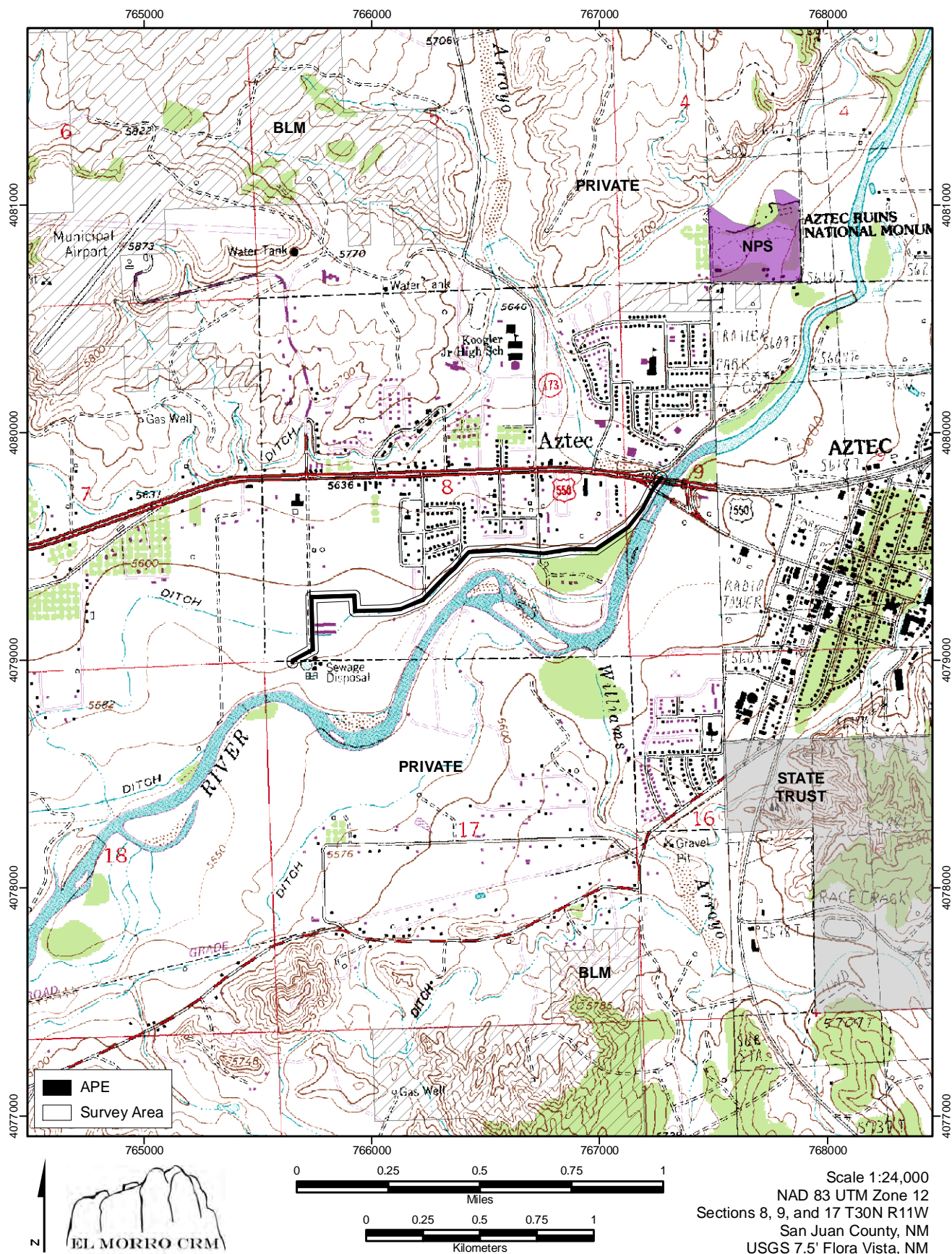


Figure 2. Aztec Sewer Outfall Line (NMCRIS No. 125442) Project Area Map.

proposed undertaking should have *no adverse effect* on historic properties if the recommendations for construction monitoring offered below are followed.

ENVIRONMENTAL SETTING

The project area is located within the City of Aztec, New Mexico between the Animas River to the south and US 550 to the north and between Oliver Street to the west and the Chaco Street bridge or "Money Saving" bridge to the east. The proposed line follows the Elledge Mill ditch for much of its course. It is situated at elevations ranging between 5700 and 5780 ft (1737 and 1762 m) above mean sea level on the gentle south-facing slope of the northern terrace of the Animas River above the floodplain. Arroyo-dissected mesas and ridges lie to the north. The project area falls roughly between the confluences of Estes Arroyo and Kochis Arroyo with the Animas River. The river falls within the San Juan Basin of the larger Colorado Plateau physiographic unit.

The surface geologic map units of area include Holocene alluvium and Pleistocene terrace gravels (Manley *et al.* 1987). The alluvium is stream-deposited clay, silt, sand, and gravel along valley bottoms and low terraces that is up to 10 m (33 ft) thick. The terrace gravel is well-sorted outwash and pediment gravel varying in thickness from 3–17 m (10–56 ft; Manley *et al.* 1987).

The Natural Resource Conservation Service (NRCS 2012) classifies the soils as Fruitland loam, Walrees loam, Werlog loam, Fruitland sandy loam, and Turley clay loam from roughly the northeast to the southwest across the project area. Fruitland soils are slope alluvium derived from sandstone and shale. They are sandy loam on the surface with underlying fine sandy loam. Walrees loam is derived from mixed alluvium with loam underlain by stratified gravelly sand. Werlog loam is derived from mixed alluvium with loam underlain by stratified fine sandy loam to clay loam and then by stratified sand to cobbly sand. Turley clay loam is thick fan alluvium derived from sandstone and shale (NRCS 2012).

The area falls within a urban/farmland/open waters vegetative community. Observed vegetation includes Fremont cottonwood (*Populus fremontii*), elm (*Ulmus*), Russian olive (*Elaeagnus angustifolia*), salt cedar (*Tamarix*), rabbitbrush (*Chrysothamnus* spp.), sagebrush (*Artemisia* spp.), saltbush (*Atriplex* spp.), Russian thistle (*Salsola kali*), cattail (*Typha*), blackeyed Susan (*Rudbeckia hirta*), and cheatgrass (*Bromus tectorum*). Representative small mammals include raccoon (*Procyon*) and skunk (*Mephitis*) as well as a variety of rodents (*Cynomys*, *Geomys*, etc.). A variety of birds as well as amphibians and reptiles, which include turtles, snakes, lizards, and toads, occur within the area. Among the more conspicuous birds is the common raven (*Corvus corax*). In addition, domestic animals such as cattle (*Bos*) and horses (*Equus*) graze within the general area. Residents also keep domestic dogs (*Canis familiaris*) and cats (*Felis domestica*).

The climate is characterized as semi-arid. For the Aztec Ruins National Monument weather station, annual average maximum temperature is 67.8 degrees Fahrenheit (°F; 19.8 degrees Celsius [°C]), while annual average minimum temperature is 34.9°F (1.6°C; Western Regional Climate Center [WRCC] 2012). Annual average total precipitation is 9.8 inches (in; 24.9 centimeters [cm]). July, August, and September are the only months that receive over 1 in (2.5 cm) of precipitation on average (WRCC 2012).

Extremely dense groundcover rendered a portion of the survey area impassable with no ground surface visibility. This portion, which is located on the northwestern side of Elledge Mill ditch and north of the eastern tip of Animas River Park, was excluded from survey. The alluvial depositional processes at work in the area could result in differential site burial and exposure over time. Archaeological site visibility would change accordingly.

CULTURE HISTORY

The sites revealed during the field survey have a Pueblo III period (A.D. 1100 to 1300) and U.S. Territorial to Recent Historic period (A.D. 1848 to present) cultural affiliation; therefore, the focus of this section will be a brief account of these periods in the immediate area of Aztec, New Mexico.

Aztec Ruins National Monument is a world renowned Ancestral Puebloan site, which has been the subject of archaeological inquiry since the early twentieth century. The site largely dates to the Pueblo III period. It is located along the Animas River approximately 0.75 miles (1.20 kilometers) upstream from the current project area. Aztec North is a 100-room great house presumably built by local Puebloan groups in vernacular style of cobbles and adobe mortar in the A.D. 1090s–1100 (Reed 2011:244). Recent research suggests that, by A.D. 1100, Chacoan groups arrived to begin construction of the 400-room Aztec West in Chacoan style masonry. During A.D. 1125–1140, Chacoan groups begin construction of the 350-room Aztec East also in the Chacoan style. From A.D. 1100–1140, this community expands throughout the Animas, La Plata, and San Juan drainages in the Middle San Juan region (Reed 2011:244). This community retained social and economic ties to Chaco Canyon.

Pueblo III sites located along the Animas River, such as LA 15185, LA 15186, and LA 15235, were undoubtedly affiliated with the Aztec great house community center. Small roomblock sites likely represent outlying farmsteads that were part of the Aztec community. These were likely built in local vernacular style (see Brown and Paddock 2011:207–209). By the end of the Pueblo III period the Aztec area was largely depopulated and remained so until the entry of Navajo groups. The timing of the Navajo entry into the general area is debatable but generally thought to occur after A.D. 1500 leaving approximately two centuries of little discernable human activity in the Aztec area.

The Treaty of Guadalupe Hidalgo of 1848 ended the Mexican-American War and gave the United States ownership of the northern portion of what is now New Mexico. The Gadsden Purchase of 1853 transferred ownership of the southern portion of what is now New Mexico to the United States. Euro-American settlement of the territory was largely hindered, partially due to hostilities with native groups, until several years after the Homestead Act of 1862. Homesteaders were farmers and ranchers who settled along the river valleys. Early on, irrigation ditches were constructed to provide water for agricultural fields. San Juan County was delineated in 1887 and Aztec became the county seat in 1890. New Mexico remained as a United States territory until gaining statehood in 1912. Farming and ranching was the mainstay of the local economy until the 1950s when oil and gas production was on the rise. Gas production continues to be a main influence on the local economy and population dynamics.

RECORDS REVIEW

On 30 September 2012, El Morro CRM Principal Investigator Jesse Murrell conducted an internet-based review of NMCRIS records. The New Mexico Historic Preservation Division in conjunction with the Museum of New Mexico administers the Archaeological Records Management Section (ARMS), which maintains NMCRIS. The objective of the review was to identify all previously conducted surveys and previously recorded sites within 500 m (1640 ft) of the project area. If no surveys or sites are revealed, then the review area is expanded to be within 1000 m (3281 ft) of the project area.

A total of seven previously conducted surveys and six previously recorded sites were identified within 500 m (1640 ft) of the project area. Tables 1 and 2 present the results of the record review. Sites LA 68214 and LA 122905 were encountered in the survey area. Original records place site LA 15235 in the current survey area. It was not encountered during the survey. Original site records place sites LA 15185 and LA 15186 nearby but outside the current survey area. Site LA 168259 is located at a sufficient distance from the currently proposed undertaking and should not be impacted.

Table 1. Previously Conducted Surveys Revealed During Records Review.

NMCRIS No.	Performing Agency	Survey Acreage	Site Frequency
50072	Southwest Archaeological Services	1.84	0
61736	Moore Anthropological Research	11.96	1
77805	San Juan County Museum Association Division of Conservation Archaeology (DCA)	4.50	0
78215	Townsend Archaeological Consultants	10.35	0
90674	Marron and Associates	270.00	5
104774	Marron and Associates	1.00	1
109590	Marron and Associates	2.30	3

Table 2. Previously Recorded Sites Revealed During Records Review.

LA No.	Ownership	Site Type	Occupation Type
15185	Private	Structural	Prehistoric (PIII roomblock)
15186	Private	Structural	Prehistoric (PIII roomblock)
15235	Municipal	Structural	Prehistoric (PIII roomblock)
68214	Private and Municipal	Structural	Historic (segment of Elledge Mill ditch)
122905	NMDOT	Structural	Historic (Chaco Street bridge; NMDOT Bridge No. 119)
168259	Municipal	Archaeology	Prehistoric (reburial location)

METHODS

All records review, fieldwork, and reporting methods followed the guidance provided in 4.10.15 NMAC. Jesse Murrell completed the survey on 30 September 2012 walking 100 percent of the survey area in transects spaced approximately 15 m (50 ft) apart. Ground surface visibility ranged from approximately 70 to 0 percent. Extremely dense riparian groundcover rendered a portion of the survey area impassable with no ground surface visibility. The survey was conducted in sunny afternoon lighting conditions. A global positioning system (GPS) with approximately 2 m (6 ft) accuracy was used to track transects as well as locate and record sites. Site and feature overview photographs as well as artifact detail photographs were recorded with a digital camera. Artifacts in direct spatial association with features were tabulated. Unique artifacts within the general site scatter were also tabulated. Sites were documented on Laboratory of Anthropology (LA) site records and field notes were kept.

RESULTS

A total of two previously recorded sites—LA 68214 and LA 122905—were updated during the survey. Site LA 15235 was not relocated in the current survey. No isolated occurrences were encountered during the survey. The Cultural Properties Act (Section 18-6-11.1) requires that any information concerning the location of archaeological sites shall remain confidential. All site location information is relegated to Appendix A. This appendix will only be submitted to agency reviewers.

Site LA 15235

Site LA 15235 is located within the Aztec Wastewater Treatment Facility (Figure 3). It was originally recorded as a Pueblo III period roomblock by Charlie Steen in 1977. This investigation does not appear have a NMCRIS activity number or report detailing the results. In the original site form, Steen states that farming and sewage plant operations have destroyed the ruin and all that remains are very few sherds, lithic artifacts, and heat-altered sandstone. He goes on to state that the walls of the ruin were likely cobblestone masonry.

Archaeologists from Marron and Associates revisited the site in advance of proposed improvements to the Aztec Wastewater Treatment Facility (Quirolo and Brown 2007). The site was not relocated, and it was assumed that the site was originally misplotted or that it no longer existed. It was recommended that the proposed project would have no effect on the site, and no treatment recommendations were offered.

During construction activities associated with the improvements to the facility, prehistoric human remains and a few artifacts were discovered at site LA 15235. The City of Aztec retained Aztec Archaeological Consultants to treat the discovery. Apparently, there is no linked NMCRIS activity number for this investigation. The human remains and artifacts were later reburied at nearby site LA 168259 (Rude 2010). Reburial was conducted under NMCRIS No. 118867.

During the current investigation, no surface manifestation of the site was observed. Ground disturbance within the area is extensive. Wastewater facilities and gravel completely cover the ground surface in the site area.

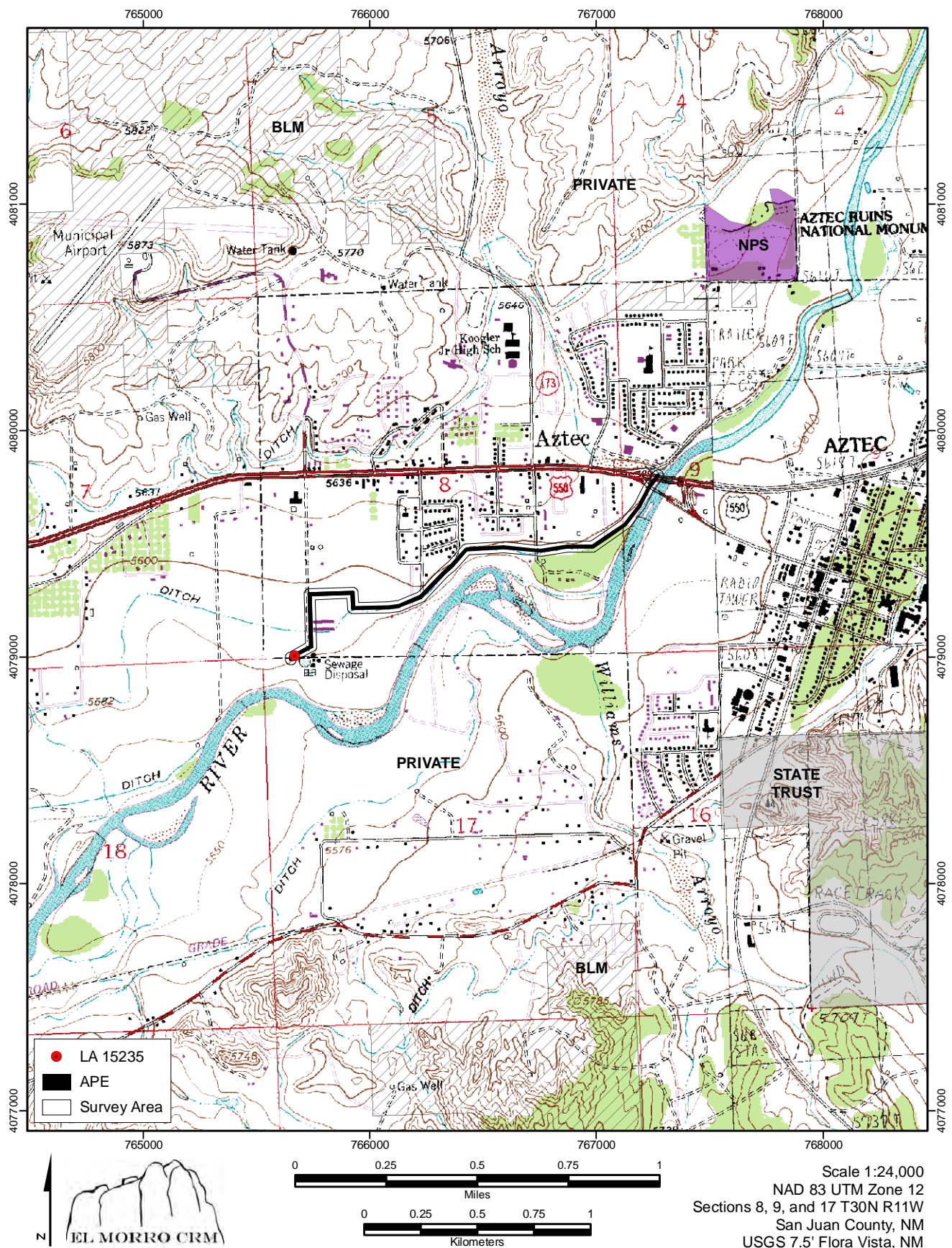


Figure 3. Aztec Sewer Outfall Line (NMCRIS No. 125442) Site LA 15235 Location Map.

NRHP Eligibility Evaluation

After the Marron and Associates investigation, SHPO personnel recorded that NRHP eligibility was undetermined (HPD Log No. 82033, 21 August 2007). It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

Recommendations

It is recommended that all initial ground-disturbing construction activities within site LA 15235 and the Aztec Wastewater Facility are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted concerning the treatment of the resource.

Site LA 68214

Site LA 68214 was originally recorded by archaeologists from the Albuquerque District of the U.S. Army Corps of Engineers (Rayl 1988). The site was revisited and updated by archaeologists from Marron and Associates in advance of the construction of the Riverside Park trail extension (Quirolo et al. 2008). Site LA 68214 is an in-use segment of the Elledge Mill ditch that has a diversion priority date of 1878. Joe Elledge, who helped construct the ditch, ran a flour mill driven by a water wheel in the ditch. In the early 1900s, the ditch powered the light plant, which provided Aztec with electricity.

The ditch is earthen lined and 10 to 18 ft (3 to 5 m) wide. Rayl (1988) reported that, in total, the system has 10 to 12 miles (16 to 19 kilometers) of ditch irrigating 970 acres of land with 165 users. Location information and photos were recorded for four gates, two culverts, the ditch crossing at Oliver Street, and a bridge crossing the ditch (Figure 4 and Appendix A).

During the current investigation, the ditch was updated using a Historic Water Delivery System Inventory Form (HWDSIF) rather than a Laboratory of Anthropology (LA) site record. Prior to this recording, it appears that a HWDSIF had not been completed for the ditch.

NRHP Eligibility Evaluation

During the most recent previous recording by Marron and Associates, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation.

Recommendations

The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. No further archaeological investigation at the site is warranted in relation to the currently proposed undertaking.

Site LA 122905

Site LA 122905 is the in-use Chaco Street bridge (New Mexico Department of Transportation [NMDOT] Bridge No. 119) over the Animas River (Figure 5). Locally, the bridge is known as the "Money-Saving Bridge" due to Hi-Country Chevrolet advertising. The dealership is located

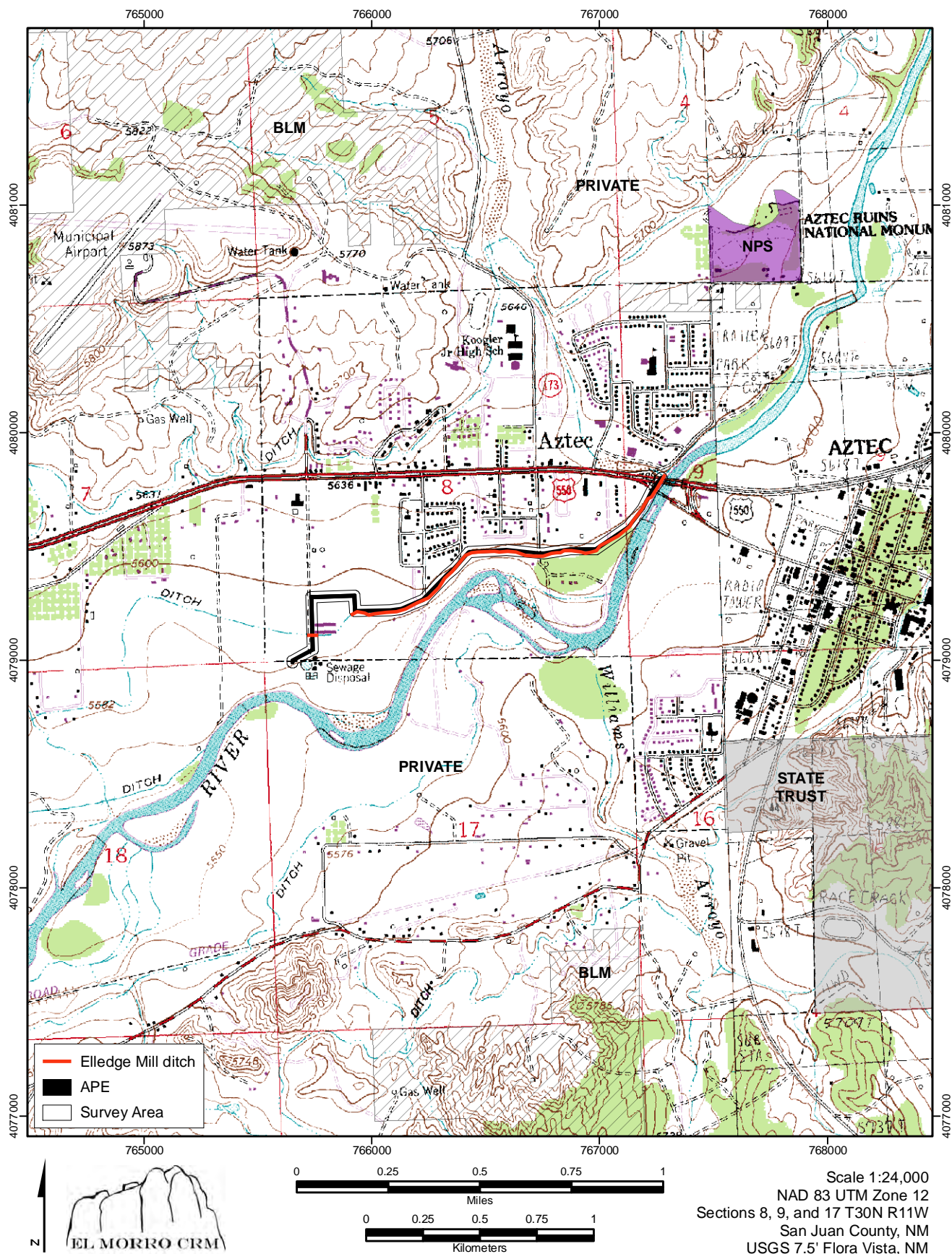


Figure 4. Aztec Sewer Outfall Line (NMCRIS No. 125442) Site LA 68214 (Elledge Mill ditch segment) Location Map.

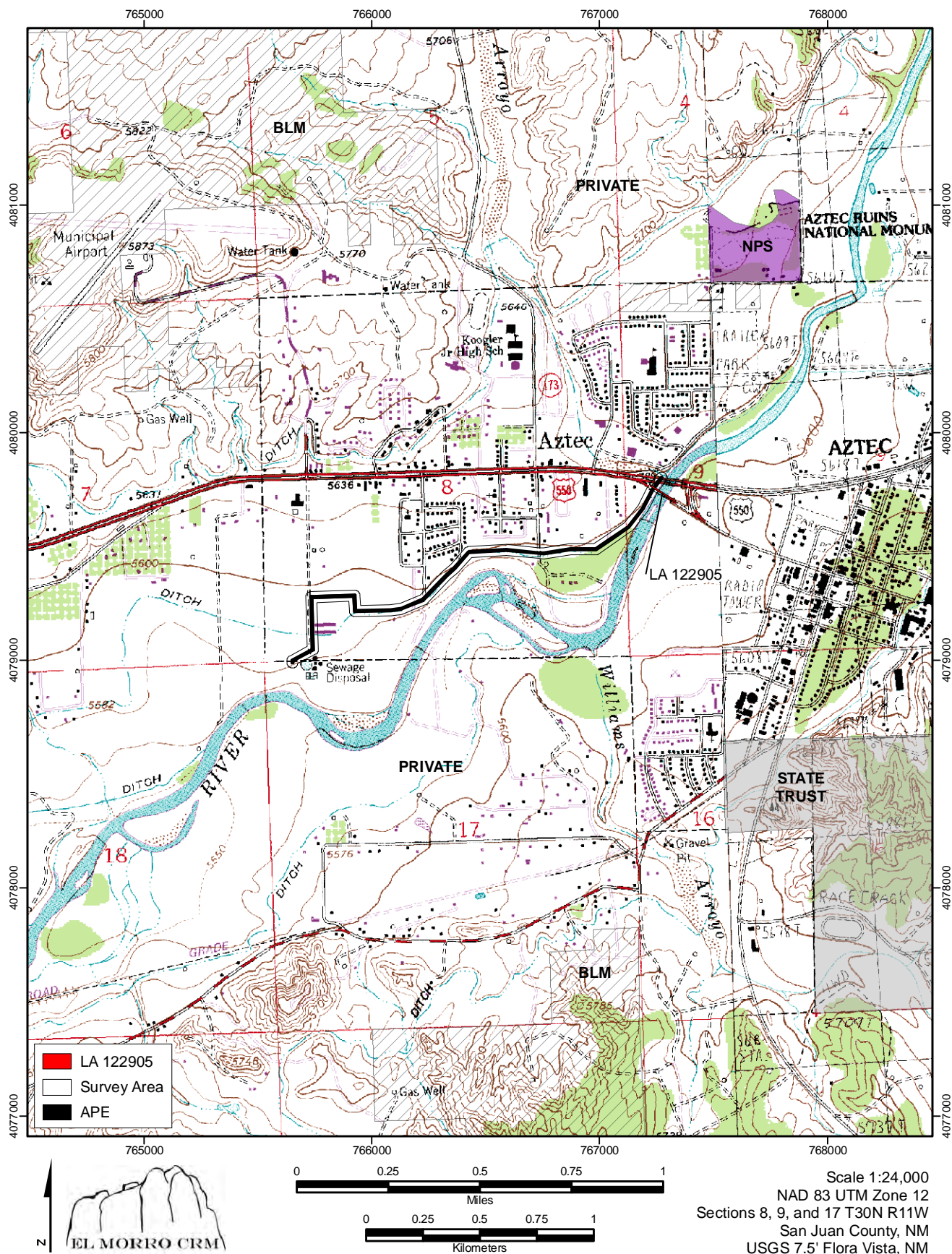


Figure 5. Aztec Sewer Outfall Line (NMCRIS No. 125442) Site LA 122905 Location Map.

in close proximity to the bridge along Chaco Street in Aztec. It was originally recorded by archaeologists from Moore Anthropological Research in advance of the construction of sidewalks (Moore and Barnett 1998). The site was revisited and updated by archaeologists from Marron and Associates in advance of the construction of the Riverside Park trail extension (Quirolo et al. 2008).

The Pueblo Bridge and Construction Company completed bridge construction in 1929. The construction of the bridge was a Federal Aid Project. The steel bridge has a Parker thru truss span with pony truss approach spans. The bridge has two concrete piers, and it measures approximately 360 ft (110 m) in length and a road way that measures approximately 20 ft (6 m) in width. There have been few improvements to the bridge since its original construction.

NRHP Eligibility Evaluation

SHPO determined that the bridge was eligible for listing in the NRHP under Criteria A and C (HPD Log No. 84142, 16 May 2008). During the current investigation, no reason was found to reevaluate this determination.

Recommendations

All construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered (see Appendix A). Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two Pueblo III period roomblock sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel.

SUMMARY AND MANAGEMENT RECOMMENDATIONS

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the survey. Site LA 68214 is an in-use segment of the Elledge Mill ditch. During the most recent previous recording, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation. Site LA 122905 is the in-use Chaco Street bridge (NMDOT Bridge No. 119) over the Animas River. A SHPO determination of eligibility (DOE) for site LA 122905 was made on 16 May 2008. The site was determined to be eligible for listing in the NRHP under Criteria A and C. There was no reason to reevaluate the SHPO DOE.

A single previously recorded site—LA 15235—was not relocated in the current survey area. The site was originally encountered in an area currently occupied by the Aztec Wastewater Treatment Facility. During the most recent previous update (NMCRIS Activity No. 104774), no surface manifestation of the site was observed and the recorder offered no treatment recommendations for a wastewater facilities improvement project. NRHP eligibility remained undetermined. During construction for the improvements to the facility, prehistoric human remains were discovered at the site. The remains were reinterred at site LA 168259 (NMCRIS Activity No. 118867). During the current investigation, no surface manifestation of the site was

observed. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

The proposed undertaking crosses NMDOT right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and SRCP listing; however, the NMDOT Environmental Design Division did not require an evaluation of eligibility during the current investigation.

The proposed undertaking should have *no adverse effect* on historic properties if the recommendations offered below are followed. The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. All construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. This is also the case with NMDOT bridges 6219 and 6220. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered. Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two prehistoric sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. The archaeologist should also monitor all initial ground-disturbing construction activities within LA 15235 and the Aztec Wastewater Treatment Facility. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted concerning the treatment of the resource.

REFERENCES CITED

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1998 *A Cultural Resources Survey of the U.S. Highway 550 Sidewalk Project in Aztec, San Juan County, New Mexico*. Report No. 98-055. Moore Anthropological Research, Aztec, New Mexico.
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- Quirolo, Mary and Kenneth K. Brown
2007 *Cultural Resource Report for a Class I and Class III Survey of 0.3 ha (0.7 ac) for Proposed Improvements at the Aztec Wastewater Facility, Aztec, San Juan County, New Mexico*. Report No. 0251. Marron and Associates, Albuquerque, New Mexico.
- Quirolo, Mary, Timothy McEnany, and Marie E. Brown
2008 *Cultural Resource Report for a Class I and Class III Survey of 0.9 Hectares (2.3-Acres) for the Proposed Riverside Park Trail Extension along the West Side of the Animas River in the City of Aztec, San Juan County, New Mexico*. Report No. 0245. Marron and Associates, Albuquerque, New Mexico.

WRCC

2012 Western U.S. Climate Historical Summaries. Electronic document,
<http://www.wrcc.dri.edu/Climsum.html>, accessed 13 October 2012.

APPENDIX A: NIAF ATTACHMENTS

For Agency Use Only



September 30, 2014

Nathan Kirker
SME Environmental Consultants
679 East 2nd Avenue Unit E2
Durango Colorado 81301

Re: Summary Letter Report, Project No. DRA142601; Cultural Resources Survey of Two Extensions of the Aztec Sanitary Sewer Interceptor Improvements project, City of Aztec, San Juan County, New Mexico.

Dear Mr. Kirker,

This letter and attachments serves to summarize the cultural resources survey of two extensions of the Aztec Sanitary Sewer Interceptor Improvements project, City of Aztec, San Juan County, New Mexico. The project area is located at the intersection of Aztec Boulevard and Ruins Road in the City of Aztec. The project consists of two sewer line extensions that connect to manholes at the end of the improvements project. The extension to Man Hole no. 29 is approximately 166 ft long and the extension to Man Hole no. 30 is approximately 82 ft long (see attached maps). The temporary construction easement is 60 ft wide centered on the proposed sewer line extensions.

On September 25, 2014 Douglas D Dykeman of Dykeman Roebuck Archaeology, LLC (DRA) conducted a cultural resources survey of the proposed sewer line extensions. The cultural resources survey area included the temporary construction easement plus 50-wide cultural buffer zones on all sides of the easement. The total area surveyed for cultural resources is approximately 1.3 acres.

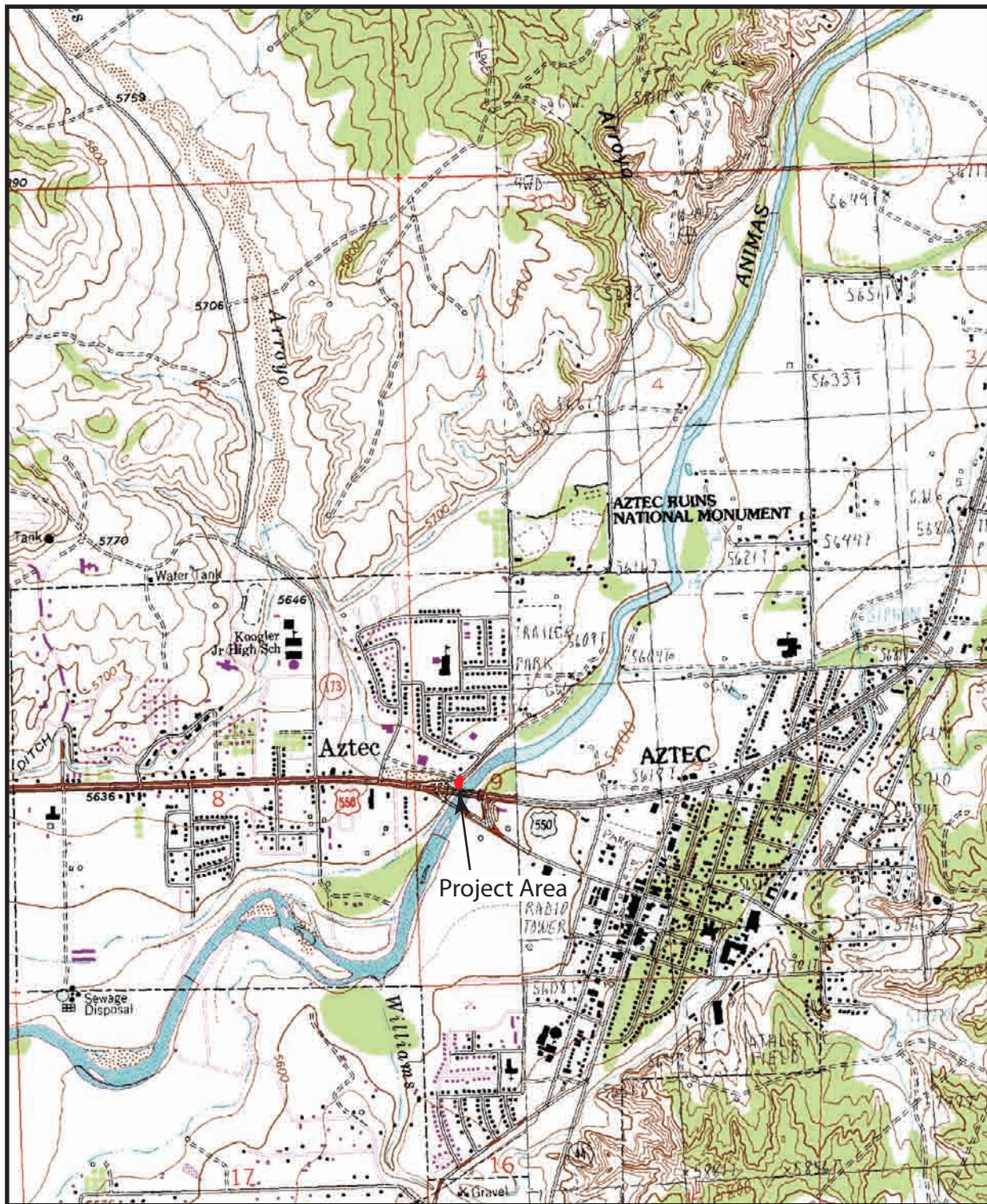
The survey area occurs in the riparian zone of the floodplain and first terrace of the Animas River. The area is subject to seasonal flooding of the Animas River. Cultural modifications to the area include construction of the Elledge Mill Ditch, Aztec sewer lines, and roads/bridges for Aztec Boulevard and Ruins Road. In sum the entire project area appears to have been modified from its natural state.

The Elledge Mill Ditch is a cultural property that occurs in the project area and was previously documented for this sewer line project by Murrell (2012). The results of the current survey indicate that no additional cultural resources are identified in the project area.

This cultural resources summary is intended to be informational, it is not intended for agency review. Upon request, DRA can prepare a report for agency review. Please get in touch with me if you have any questions about this project. |

Sincerely,

Douglas D. Dykeman, Archaeologist
Dykeman Roebuck Archaeology, LLC
505 330-0890



Project: Aztec Sanitary Sewer Interceptor Improvements - Extensions
 Map Compiled from 7.5' USGS Quadrangles: Aztec, NM
 and Flora Vista, NM
 San Juan Co. New Mexico



2,000 ft
 610 m

Dykeman Roebuck Archaeology LLC - Project DRA116007

Project area map.



Overview of project area.

NMCRIIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIIS Activity No.: 134970	2a. Lead (Sponsoring) Agency: New Mexico Environment Department	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:									
4. Title of Report: Reroute of Aztec Sanitary Sewer Interceptor Improvements Cultural Resource Survey for City of Aztec, San Juan County, New Mexico Author(s): Douglas D. Dykeman			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive									
6. Investigation Type <input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other												
7. Description of Undertaking (what does the project entail?): The City of Aztec proposes a reroute of a portion of the Aztec Sanitary Sewer Interceptor Improvements project that was previously reported by Murrell (2012). The rerouted sewer line is positioned in an existing 30-ft-wide City of Aztec utility easement in the middle of paved streets named Western Circle and Western Drive. The area of potential effect (APE) extends to the edges of the streets, which average 36 ft wide. Slight extensions of the APE occur at the eastern end and at two points along the reroute. The reroute begins on a residential lawn approximately 80 ft east of the intersection of Swire Ave and Western Circle in Aztec and extends approximately 1,080 ft westward to the edge of the Riverwest subdivision. Construction of the proposed sewer line entails preparation of the right-of-way, trenching, placement of the pipe, and backfilling the trench. Mechanical equipment will be used during all phases of construction. Appendix A contains a drawing indicating location of the undertaking and shape of the APE. Murrell, Jesse B. 2012 <i>Cultural Resource Inventory for the City Of Aztec Sewer Outfall Line in San Juan County, New Mexico</i> . El Morro CRM Report No. 2012-SME-01. On file, Historic Preservation Division, New Mexico Department of Cultural Affairs, Santa Fe, New Mexico.			8. Dates of Investigation: December 11, 2015 9. Report Date: January 8, 2016									
10. Performing Agency/Consultant: Dykeman Roebuck Archaeology, LLC Principal Investigator: Paul Roebuck, Ph.D. Field Supervisor: Douglas D. Dykeman Field Personnel Names: Douglas D. Dykeman			11. Performing Agency/Consultant Report No.: DRA152602-1 12. Applicable Cultural Resource Permit No(s): NM-15-196-S									
13. Client/Customer: SME Environmental, Inc (On the behalf of the City of Aztec) Contact: Nathan Kirker Address: 679 East 2nd Avenue Unit E2, Durango, Colorado 81301 Phone: (970) 259-9595			14. Client/Customer Project No.: n/a									
15. Land Ownership Status (<i>Must be indicated on project map</i>): <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 50%;">Land Owner</th> <th style="width: 25%;">Acres Surveyed *</th> <th style="width: 25%;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td>Private and City of Aztec easements</td> <td style="text-align: center;">1.04</td> <td style="text-align: center;">1.04</td> </tr> <tr> <td style="text-align: right;">TOTALS</td> <td style="text-align: center;">1.04</td> <td style="text-align: center;">1.04</td> </tr> </tbody> </table> <small>*calculated using map geometry</small>				Land Owner	Acres Surveyed *	Acres in APE	Private and City of Aztec easements	1.04	1.04	TOTALS	1.04	1.04
Land Owner	Acres Surveyed *	Acres in APE										
Private and City of Aztec easements	1.04	1.04										
TOTALS	1.04	1.04										
16. Records Search(es): Results of the records searches are presented in Appendix B. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 45%;">Date(s) of ARMS File Review 12/3/15 and 12/23/15</td> <td style="width: 30%;">Name of Reviewer(s) D. Dykeman</td> <td style="width: 25%;"></td> </tr> <tr> <td>Date(s) of NR/SR File Review 12/30/15</td> <td>Name of Reviewer(s) D. Dykeman</td> <td></td> </tr> <tr> <td>Date(s) of Other Agency File Review N/A</td> <td>Name of Reviewer(s) N/A</td> <td>Agency N/A</td> </tr> </table>				Date(s) of ARMS File Review 12/3/15 and 12/23/15	Name of Reviewer(s) D. Dykeman		Date(s) of NR/SR File Review 12/30/15	Name of Reviewer(s) D. Dykeman		Date(s) of Other Agency File Review N/A	Name of Reviewer(s) N/A	Agency N/A
Date(s) of ARMS File Review 12/3/15 and 12/23/15	Name of Reviewer(s) D. Dykeman											
Date(s) of NR/SR File Review 12/30/15	Name of Reviewer(s) D. Dykeman											
Date(s) of Other Agency File Review N/A	Name of Reviewer(s) N/A	Agency N/A										
17. Survey Data: a. Source Graphics <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> USGS 7.5' (1:24,000) topo map <input type="checkbox"/> Other topo map, Scale: <input checked="" type="checkbox"/> GPS Unit Accuracy <input type="checkbox"/> <1.0m <input checked="" type="checkbox"/> 1-10m <input type="checkbox"/> 10-100m <input type="checkbox"/> >100m b. USGS 7.5' Topographic Map Name USGS Quad Code Flora Vista, NM 36108-G1 c. County(ies): San Juan d. Nearest City or Town: Aztec, New Mexico												

17. Survey Data (continued):

e. Legal Description:

Township (N/S)	Range (E/W)	Section*	1/4	1/4	1/4
30 N	11 W	8	N½, SE, SW		
30 N	11 W	8	NE, SW, SW		

*template anchored on SW corner and west line of Section 8

Projected legal description? Yes [] , No [X] Unplatted []

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☐ block survey units ☒ linear survey units (l x w): ☐ other survey units (specify):

Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)

Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15 **Crew Size:** 1 **Fieldwork Dates:** December 11, 2015

Survey Person Hours: **Recording Person Hours:** **Total Hours:**

Additional Narrative: The sewer line location is not marked in the field, but the project area is positioned in streets named Western Circle and Western Drive as shown on an aerial photomap (see Appendix A) provided by SME Environmental, Inc. DRA personnel performed a systematic, pedestrian survey of the APE by walking parallel transects with intervals not exceeding 15 m. No cultural buffer zone was surveyed. This class 3 survey is an intensive field inventory: a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined. Field conditions were overcast and cold.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.): The project area is located in a residential neighborhood of the Riverwest Subdivision that is built on the first fluvial terrace of the Animas River. Paved streets (Western Circle and Western Drive) and concrete sidewalks cover the western 1,000 ft of the project area. The lawn of a private residence covers approximately 40 ft at the eastern end of the project. Natural sediments in the project area are classified as Fruitland sandy loam and Turley clay loam, both of which are associated with fluvial terraces and alluvial fans (NRCS 2015). These sediments are altered and completely covered by streets and other residential development in the Riverwest subdivision.

NRCS

2015 Soil Survey Staff, National Resource Conservation Service, United States Department of Agriculture, Web Soil Survey. <http://soildatamartnrcs.usda.gov>. Accessed 12/30/15.

Vegetation: native and exotic species in a suburban landscape

Elevation: 6590'

20. a. Percent Ground Visibility: 0% **b. Condition of Survey Area (grazed, bladed, undisturbed, etc.):** The natural condition of the area has been completely altered by the suburban infrastructure of the Riverwest subdivision, which was constructed in the 1980s. Paved streets, concrete sidewalks, and maintained lawns cover 100 percent of the project area; therefore, none of the original natural ground surface is visible within the project area.

21. CULTURAL RESOURCE FINDINGS ☐ Yes, See Page 3 ☒ No, Discuss Why:

22. Required Attachments (check all appropriate boxes):

☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn

☒ Copy of NMCRIS Mapserver Map Check

☐ LA Site Forms - new sites (*with sketch map & topographic map*)

☐ LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)

☐ Historic Cultural Property Inventory Forms

☐ List and Description of isolates, if applicable

☐ List and Description of Collections, if applicable

23. Other Attachments:

☐ Photographs and Log

☒ Other Attachments

(Describe): project area photo

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Paul Roebuck, Ph.D.

Signature



Date: January 8, 2016 **Title (if not PI):**

25. Reviewing Agency:

Reviewer's Name/Date

Accepted () **Rejected** ()

Tribal Consultation (if applicable): ☐ Yes ☐ No

26. SHPO

Reviewer's Name/Date:

HPD Log #:

SHPO File Location:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 134970	2. Lead (Sponsoring) Agency: New Mexico Environment Department	3. Lead Agency Report No.:
---	--	-----------------------------------

SURVEY RESULTS: No cultural resources were documented during the survey. The project area is located in a residential neighborhood known as the Riverwest subdivision. According to San Juan County Clerk records, the subdivision was first platted in 1980 and the first lots deeded in 1981. Field observations indicate that all properties adjacent to the project area are relatively small, wood-frame houses with stucco or fiberboard siding and roofed with asphalt shingles. All houses are of a similar design, characteristic of late twentieth-century construction. The properties were not documented on Historic Cultural Property Inventory forms, because they are part of the subdivision that is less than 50 years old.

Sites discovered and registered: 0
Sites discovered and NOT registered: 0
Previously recorded sites revisited *(site update form required)*: 0
Previously recorded sites not relocated *(site update form required)*: 0
TOTAL SITES VISITED: 0
Total isolates recorded: 0 **Non-selective isolate recording?** ☒
Total structures recorded *(new and previously recorded, including acequias)*: 0

MANAGEMENT SUMMARY: DRA recommends cultural resources approval for the project as currently proposed.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

MONITORING LA NUMBER LOG *(site form required)*

Sites Discovered *(site form required)* : **Previously recorded sites** *(Site update form required)*:

LA No.	Field/Agency No.	LA No.	Field/Agency No.

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG *(site form required)*

Tested LA number(s)	Excavated LA number(s)

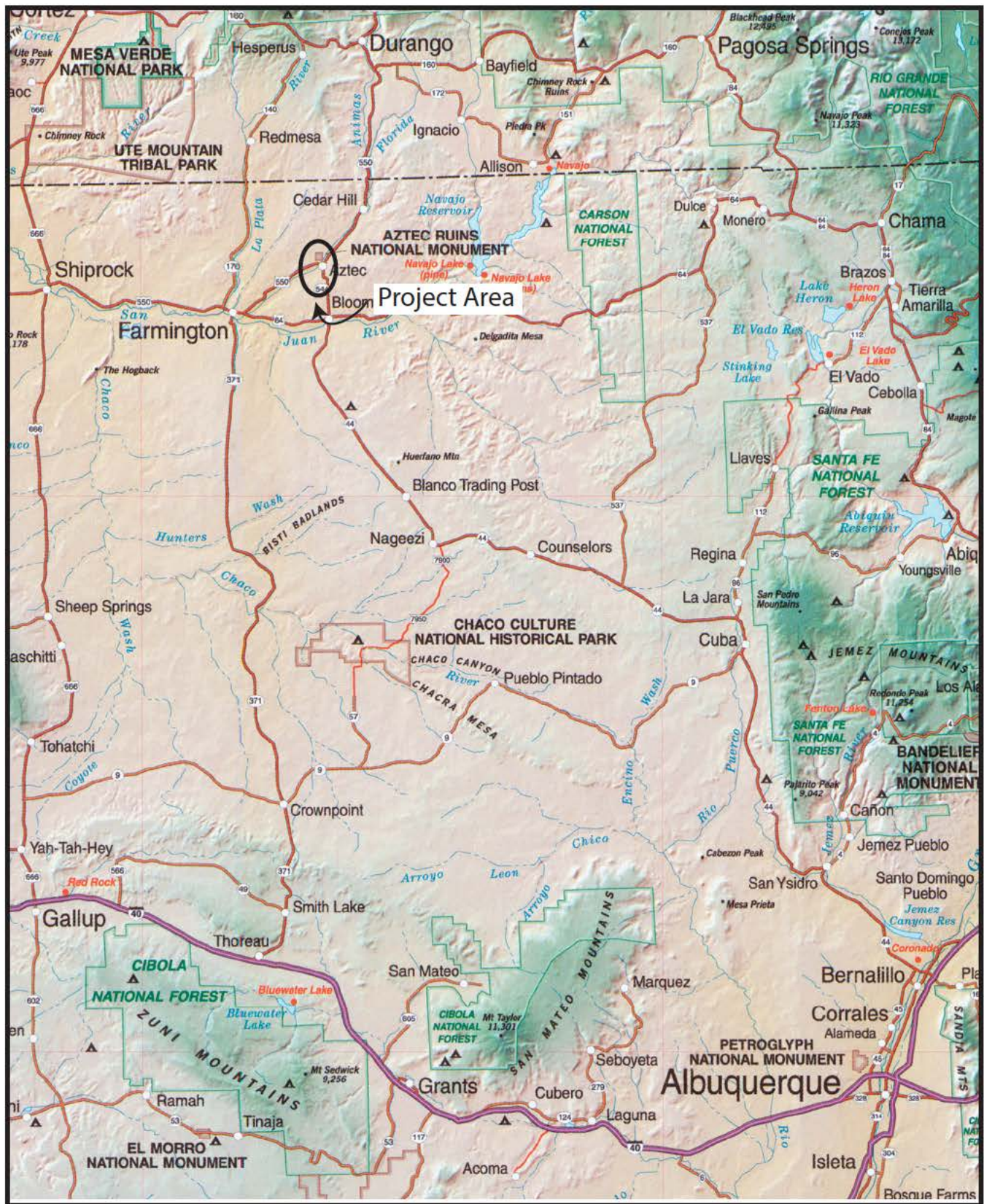
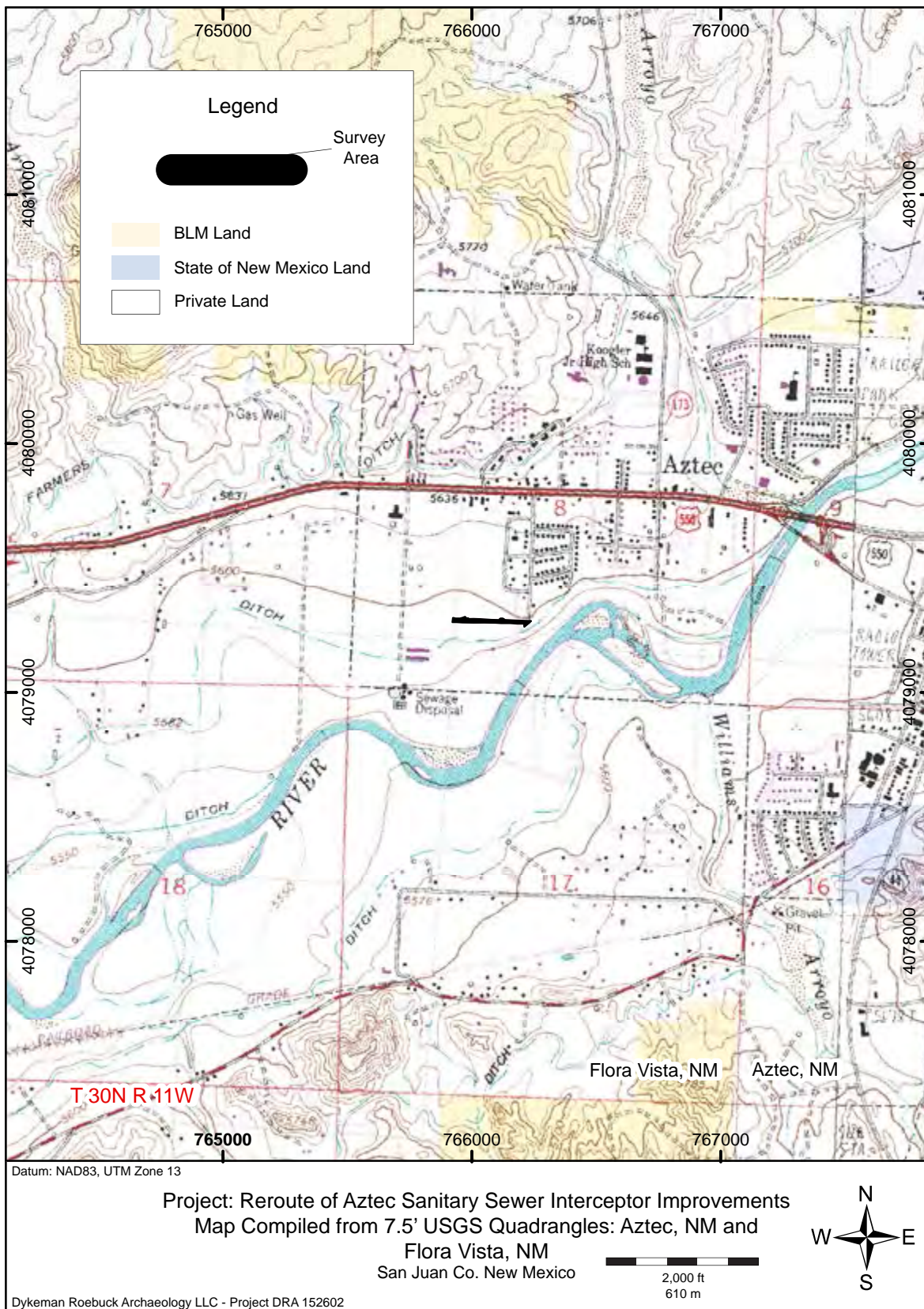


Figure 1. General vicinity map.



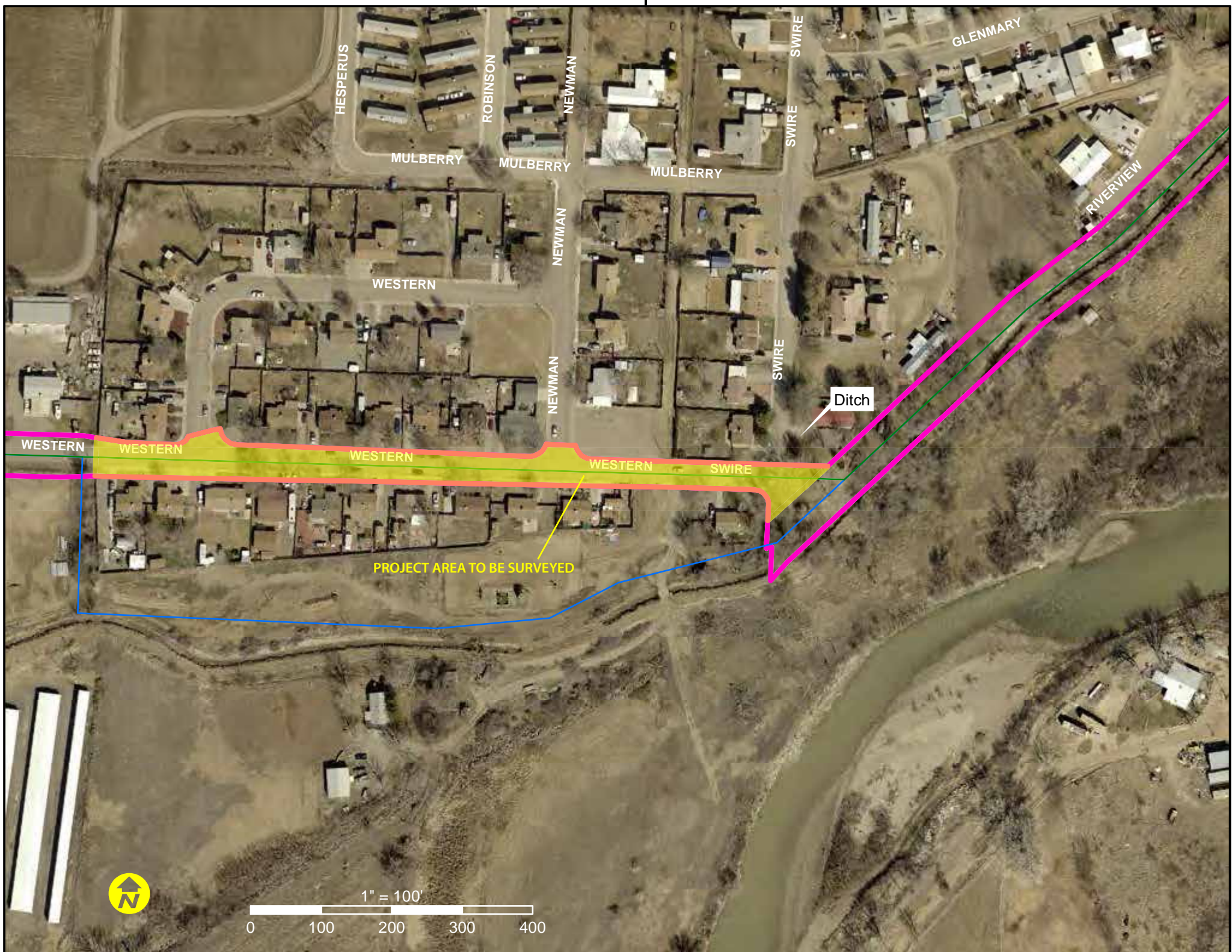


Sewer line reroute, project overview, looking west.

Appendix A

Project Location Drawing

231,000



HESPERUS

MULBERRY

ROBINSON

NEWMAN

MULBERRY

MULBERRY

SWIRE

GLENMARY

RIVERVIEW

WESTERN

NEWMAN

SWIRE

Ditch

WESTERN

WESTERN

WESTERN

WESTERN

SWIRE

PROJECT AREA TO BE SURVEYED

1" = 100'

0 100 200 300 400

Appendix B
Archaeological Records Search

CONFIDENTIAL
FOR REVIEWING AGENCY ONLY

Previously Recorded Sites

Three previously recorded sites are located within 500 m of the project area. Existing documentation of these sites was not updated. Site LA 68214 is close to the project area. It is the Elledge Mill Ditch that was comprehensively updated by Murrell (2012) for the original alignment of the Aztec sewer line project.

List of Nearby Previously Recorded Sites Located Outside of the Project Area

Site Number	Direction from Project to Site	Distance to Site	Site Type	Cultural Affiliation	National Register Listed	State of New Mexico Register Listed
LA 68214	Southeast	16 m	Archaeology/Features	Historic	No	No
LA 15235	Southwest	490 m	Archaeology/Features	Prehistoric	No	No
LA 168259	Southwest	230 m	Archaeology/Features	Prehistoric	No	No

National and State Register Properties

Nineteen properties listed on the National and/or State registers of historic places are located between 1,400 and 2,400 m from the project area (see Register Properties map attached).

Register Properties in Project Area Vicinity

Map ID	Property Name	SR No.*	SR Date*	NRHP Date*
152516	Aztec Main Street Historic District	85000321	6/4/82	2/21/85
152747	Church Avenue - Lovers Lane Historic District	85000329	8/17/84	2/21/85
152930	Aztec Ruins National Monument (LA 45)	66000484	5/21/71	10/15/66
153269	Aztec Presbyterian Church		6/22/79	
153393	Case, Maurice, House		6/4/82	
153394	Abrams, H. D., House	85000322	6/4/82	2/21/85
153395	American Hotel	85000323	6/4/82	2/21/85
153500	Aztec Ruins Administration Building/Museum	96001041		10/11/96
153582	McCoy, Harvey, House	85000333	8/17/84	2/21/85
153584	Aztec Motor Company Building	85000325	8/17/84	2/21/85
153587	Daws-Keys House	85000330	8/17/84	2/21/85
153588	McGee, James, House	85000335	8/17/84	2/21/85
153589	Park Avenue, 202, Building	85000328	8/17/84	2/21/85
153590	Engleman - Thomas Building	85000332	8/17/84	2/21/85
153591	Bunker, Fred, House		6/4/82	
153747	Lower Animas Ditch, Structure	87001116	8/17/84	3/19/87
153815	Altrurian Library Building		4/13/07	
186297	Aztec North Mesa Archaeological District		10/10/03	
198379	Historic Resources of Aztec Thematic Group			2/21/85

* SR = State Register; NRHP = National Register of Historic Places

Sacred Places (from Van Valkenburgh 1974)

AZTEC RUIN (Kin niteel-Wide House) is located approximately 2 km northeast of the project area. Many Navajo rites and chantway associations are attributed to this ruin.

Areas of Critical Environmental Concern (ACEC)

No Bureau of Land Management ACEC's are in vicinity of the project area.

Previous Inventories

Murrell (2012) reported the archaeological survey of the original route of the proposed Aztec sewer line. The sewer line reroute, as reported here, intersects but does not overlap with Murrell's original survey area.

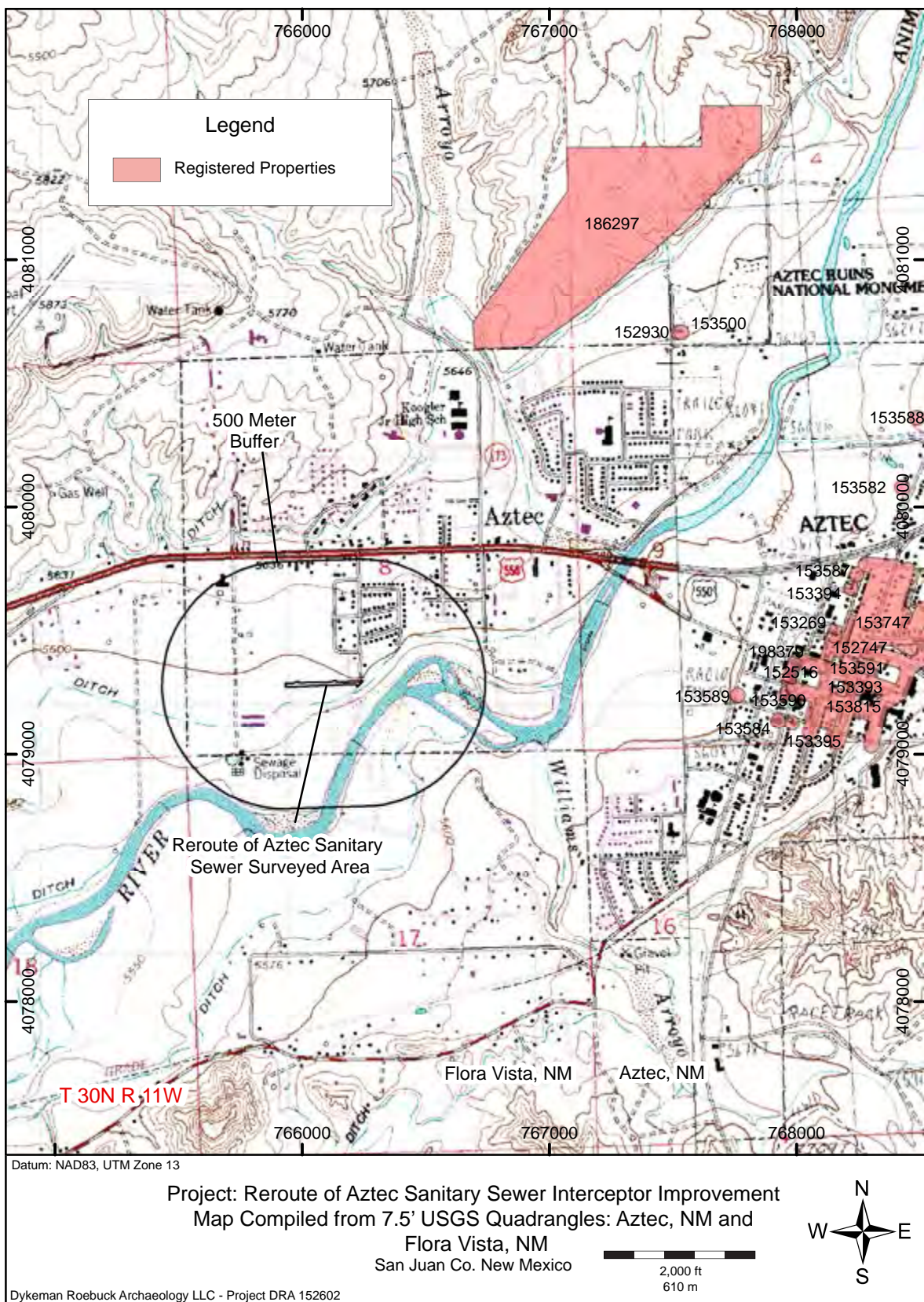
References

Murrell, Jesse B.

- 2012 *Cultural Resource Inventory for the City Of Aztec Sewer Outfall Line in San Juan County, New Mexico*. El Morro CRM Report No. 2012-SME-01. On file, Historic Preservation Division, New Mexico Department of Cultural Affairs, Santa Fe, New Mexico.

Van Valkenburgh, Richard F.

- 1974 Navajo Sacred Places, edited by Clyde Kluckhohn. In *Navajo Indians III*, pp. 1-199. Garland Publishing, New York.



APPENDIX E

Demographic Data Summary – Environmental Justice



EJView ACS Summary Report



Location: -108.013630,36.822890

Study Area: 4.0 miles around the point location

Summary of ACS Estimates		2006 - 2010
Population		12,611
Population Density (per sq. mile)		140
Minority Population		4,572
% Minority		36%
Households		4,365
Housing Units		4,707
Housing Units Built Before 1950		331
Per Capita Income		23,259
Land Area (sq. miles) (Source: SF1)		90.12
% Land Area		99%
Water Area (sq. miles) (Source: SF1)		0.48
% Water Area		1%

	2006 - 2010 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	12,611	100%	662
Population Reporting One Race	12,142	96%	1,595
White	9,592	76%	543
Black	30	0%	127
American Indian	1,945	15%	492
Asian	27	0%	127
Pacific Islander	4	0%	127
Some Other Race	544	4%	179
Population Reporting Two or More Races	468	4%	249
Total Hispanic Population	2,549	20%	286
Total Non-Hispanic Population	10,062		
White Alone	8,038	64%	537
Black Alone	30	0%	127
American Indian Alone	1,807	14%	492
Non-Hispanic Asian Alone	27	0%	127
Pacific Islander Alone	4	0%	127
Other Race Alone	0	0%	127
Two or More Races Alone	155	1%	127
Population by Sex			
Male	6,409	51%	393
Female	6,202	49%	345
Population by Age			
Age 0-4	853	7%	151
Age 0-17	3,297	26%	293
Age 18+	9,314	74%	337
Age 65+	1,237	10%	187

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

Source: U.S. Census Bureau, American Community Survey (ACS) 2006 - 2010.



EJView ACS Summary Report



Location: -108.013630,36.822890

Study Area: 4.0 miles around the point location

	2006 - 2010 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	7,998	100%	350
Less than 9th Grade	235	3%	144
9th - 12th Grade, No Diploma	909	11%	190
High School Graduate	2,808	35%	175
Some College, No Degree	2,548	32%	224
Associate Degree	447	6%	135
Bachelor's Degree or more	1,498	19%	184
POPULATION AGE 5+ YEARS BY ABILITY TO SPEAK ENGLISH			
Total	11,757	100%	661
Speak only English	9,666	82%	459
Non-English at Home ¹⁺²⁺³⁺⁴	2,092	18%	383
¹ Speak English "very well"	1,869	16%	383
² Speak English "well"	161	1%	141
³ Speak English "not well"	61	1%	140
⁴ Speak English "not at all"	0	0%	127
³⁺⁴ Speak English "less than well"	61	1%	140
²⁺³⁺⁴ Speak English "less than very well"	223	2%	182
POPULATION AGE 5+ YEARS BY LANGUAGE SPOKEN AT HOME			
Total	N/A	N/A	N/A
Speak only English	N/A	N/A	N/A
Non-English Speaking	N/A	N/A	N/A
Population by Place of Birth for the Foreign-Born			
Total	N/A	N/A	N/A
Europe	N/A	N/A	N/A
Asia	N/A	N/A	N/A
Africa	N/A	N/A	N/A
Oceania	N/A	N/A	N/A
Americas	N/A	N/A	N/A
Households by Household Income in 1999			
Household Income Base	4,365	100%	153
< \$15,000	621	14%	159
\$15,000 - \$25,000	338	8%	145
\$25,000 - \$50,000	1,280	29%	201
\$50,000 - \$75,000	886	20%	145
\$75,000 +	1,241	28%	166
Occupied Housing Units by Tenure			
Total	4,365	100%	153
Owner Occupied	3,320	76%	162
Renter Occupied	1,045	24%	127

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

2006-2010 ACS 5-year Estimates: The American Community Survey (ACS) summary files provide nation-wide population and housing characteristic data at all Census summary levels down to the Block Group level. This data was collected between January 1, 2006 and December 31, 2010. ACS replaces the decennial census sample data, and is not the 2010 Census population counts data. (<http://www.census.gov/acs/www/#fragment-3>)

Margin of error (MOE): The MOE provides a measure of the uncertainty in the estimate due to sampling error in the ACS survey. Applying the MOE value yields the confidence interval for the estimate. For example, an estimate value of 50 and +/- MOE of 5 means the true value is between 45 and 55 with a 90 percent certainty (http://www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearACSAccuracyofData2010.pdf). Maximum MOE is shown for each value within study area.

Source: U.S. Census Bureau, American Community Survey (ACS) 2006 - 2010.



EJView Census 2010 Summary Report



Location: -108.013630,36.822890

Study Area: 4.0 miles around the point location

Summary	Census 2010
Population	12,611
Population Density (per sq. mile)	140
Minority Population	4,572
% Minority	36%
Households	4,365
Housing Units	4,707
Land Area (m ²)	90.12
% Land Area	99%
Water Area (m ²)	0.48
% Water Area	1%

Population by Race	Number	Percent
Total	12,611	-----
Population Reporting One Race	12,142	96%
White	9,592	76%
Black	30	0%
American Indian	1,945	15%
Asian	27	0%
Pacific Islander	4	0%
Some Other Race	544	4%
Population Reporting Two or More Races	468	4%
Total Hispanic Population	2,549	20%
Total Non-Hispanic Population	10,354	78%
White Alone	8,038	64%
Black Alone	30	0%
American Indian Alone	1,807	14%
Non-Hispanic Asian Alone	27	0%
Pacific Islander Alone	4	0%
Other Race Alone	0	0%
Two or More Races Alone	155	1%

Population by Sex	Number	Percent
Male	6,409	51%
Female	6,202	49%

Population by Age	Number	Percent
Age 0-4	853	7%
Age 0-17	3,297	26%
Age 18+	9,314	74%
Age 65+	1,237	10%

Households by Tenure	Number	Percent
Total	4,365	
Owner Occupied	3,320	76%
Renter Occupied	1,045	24%

Data Note: Detail may not sum to totals dues to rounding. Hispanic population can be of any race.

Source: U.S. Census Bureau, Census 2010 Summary File 1.



EJView Census 2000 Summary Report



Location: -108.013630,36.822890

Study Area: 4.0 miles around the point location

Summary	Census 2000
Population	12,611
Population Density (per sq. mile)	140
Minority Population	4,572
% Minority	36%
Households	4,365
Housing Units	4,707
Housing Units Built Before 1950	331
Land Area (m ²)	90.12
% Land Area	99%
Water Area (m ²)	0.48
% Water Area	1%

Population by Race	Number	Percent
Total	12,611	-----
Population Reporting One Race	12,142	96%
White	9,592	76%
Black	30	0%
American Indian	1,945	15%
Asian	27	0%
Pacific Islander	4	0%
Some Other Race	544	4%
Population Reporting Two or More Races	468	4%
Total Hispanic Population	2,549	20%

Population by Sex	Number	Percent
Male	6,409	51%
Female	6,202	49%

Population by Age	Number	Percent
Age 0-4	853	7%
Age 0-17	3,297	26%
Age 18+	9,314	74%
Age 65+	1,237	10%

Population by Place of Birth for the Foreign-Born	Number	Percent
Total	N/A	-----
Europe	N/A	N/A
Asia	N/A	N/A
Africa	N/A	N/A
Americas	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

Source: U.S. Census Bureau, Census 2000 Summary File 3.



EJView Census 2000 Summary Report



Location: -108.013630,36.822890

Study Area: 4.0 miles around the point location

Population 25+ by Educational Attainment	Number	Percent
Total	7,998	-----
Less than 9th Grade	235	3%
9th - 12th Grade, No Diploma	909	11%
High School Graduate	2,808	35%
Some College, No Degree	2,548	32%
Associate Degree	447	6%
Bachelor's Degree or more	1,498	19%

Population Age 5+ Years by Ability to Speak English	Number	Percent
Total	11,757	-----
Speak only English	9,666	82%
Non-English at Home	2,092	18%
Speak English "very well"	1,869	16%
Speak English "well"	161	1%
Speak English "not well"	61	1%
Speak English "not at all"	0	0%
Speak English "less than well"	61	1%

Households by Household Income in 1999	Number	Percent
Household Income Base	4,365	-----
< \$15,000	621	14%
\$15,000 - \$25,000	338	8%
\$25,000 - \$50,000	1,280	29%
\$50,000 - \$75,000	886	20%
\$75,000 +	1,241	28%

Households by Tenure	Number	Percent
Total	4,365	-----
Owner Occupied	3,320	76%
Renter Occupied	1,045	24%

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

Source: U.S. Census Bureau, Census 2000 Summary File 3.



EJView Environmental Report



Location: -108.013630,36.822890

Study Area: 4.0 miles around the point location

Sites and Facilities		Count
Air Facility System (AFS)		8
Superfund Sites (NPL)		0
Toxic Releases (TRI)		0
Hazardous Waste (RCRAInfo)		17
Water Dischargers (PCS & ICIS)		8
Brownfields (ACRES)		0
Radiation Information Database (RADInfo)		0
Toxic Substances Control Act (TSCA)		0
Environmental Concerns		Count
National Water Information System (NWIS) sites		1
STORage and RETrieval (STORET) sites		19
Impaired Streams		8
Impaired Waterbodies		0
National Parks		1
Places		Count
Schools		7
Hospitals		0
Worship Places		15

Data Note: Detail may not sum to totals due to rounding.

Source: Sites and facilities, EPA Envirofacts; NWIS, USGS; STORET, EPA; impaired streams and waterbodies, EPA NHD Plus; national parks, USGS National Atlas; schools, hospitals, and worship places; USGS GNIS.

Health Statistics

Health Service Area for San Juan, NM - La Plata, CO

The health data statistics for this feature of the Environmental Justice Assessment are provided by the National Center for Health Statistics (NCHS) [Centers for Disease Control \(CDC\)](#) [EXIT Disclaimer](#), the official source for vital statistics. Currently, this information has not been released for all ethnic groups by NCHS. When the health statistics are released, they will be provided in this feature broken down by geographic area and ethnicity. This information will be made available as soon as the data have been quality assured and released by NCHS in their entirety.

Since 1960, NCHS has received several legislative mandates and authorities, and it works closely with other federal agencies, as well as researchers and academic institutions, to provide health information. NCHS data systems include data on vital events, as well as information on health status, lifestyle and exposure to unhealthy influences, the onset and diagnosis of illness and disability, and the use of health care. This information is used by policymakers in Congress and the Administration, by medical researchers, and by others in the health community.

Additional information is available from the [National Center for Health Statistics \(NCHS\)](#) [EXIT Disclaimer](#) website.

Statistic\Disease [†]	Heart Disease	All Cancers	Chronic Obstructive Pulmonary Disease	Pneumonia and Influenza	Liver Disease
White Male Rate *	172.3	140	41.3	16	9.9
White Male Significance **	2	2	5	3	3
Black Male Rate *	88.3	219.3	27.7	27.7	26.5
Black Male Significance **	2	3	3	3	5
White Female Rate *	85.8	100.6	22.4	10.5	4.4
White Female Significance **	2	2	5	3	3
Black Female Rate *	131.9	240	0	0	0
Black Female Significance **	3	5	1	1	1

SOURCE: [U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, Atlas of United States Mortality \(1997\)](#) [EXIT Disclaimer](#)

[†] Rates based on deaths during 1988-92 in the United States due to the diseases listed.

* **Rate:** The age-adjusted death rate due to cause per 100,000 population.

** **Significance:** A description of whether the death rate of the group, due to cause, varies significantly from the U.S. death rate.

2005 NATA Risk Estimates

	Cancer Risk (Persons per Million)	Neurological Hazard Risk	Respiratory Hazard Risk
SAN JUAN, NM	24.34 (32.7 Percentile)	.03 (58.8 Percentile)	.51 (29 Percentile)
New Mexico	27.84 (13.5 Percentile)	.03 (9.6 Percentile)	.89 (15.4 Percentile)

SOURCE: EPA Office of Air and Radiation (<http://www.epa.gov/ttn/atw/nata2005/>)

NOTES: Values are derived from 2005 National-Scale Air Toxics Assessment (NATA) Cancer Risk Estimates and Non-Cancer Hazard Index Scores. Percentiles are ranking of Counties and States from 0 (lowest) to 100 (highest).

2007 Asthma Prevalence By State

	White Non- Hispanic Persons	Black Non- Hispanic Persons	Multi-Racial Non- Hispanic Persons	Other Race Non- Hispanic Persons	Hispanic Persons
New Mexico					
Lifetime	15.3%	30.4%	8.7%	13.1%	11.8%
Current	9.9%	9.8%	6.2%	4.9%	7.7%

SOURCE: Centers for Disease Control and Prevention.

2007 Behavioral Risk Factor Surveillance System (BRFSS) (<http://www.cdc.gov/asthma/brfss/07/brfssdata.htm>)

2008 Mortality Rates

	Deaths per 1000
SAN JUAN, NM	7.09
New Mexico	7.84

SOURCE: US Census Bureau <http://www.census.gov/popest/>

NOTES: Mortality rates are calculated using 7/1/2007 to 7/1/2008 deaths and estimated populations from the file, "County Population Estimates and Estimated Components of Change, April 1, 2000 to July 1, 2008".

Life Expectancy at Birth in 1999

	Male and Female	Male	Female
San Juan, New Mexico	76.4	73.4	79.5

SOURCE: U.S. Census Bureau & National Center for Health Statistics

All Cancers Mortality Rates

	1950 - 1994	1970 - 1994
--	-------------	-------------

	White Male Age 0 - 19	White Female Age 0 - 19	All White Male	All White Female	All Black Male	All Black Female	White Male Age 0 - 19	White Female Age 0 - 19	Black Male Age 0 - 19	Black Female Age 0 - 19
SAN JUAN, NM	4.8384	5.1599	176.3768	122.5193	220.4834	306.0593				
New Mexico	6.3915	4.906	176.2282	123.6238	232.7052	133.5843	5.3343	3.8159	4.0466	2.1414

SOURCE: National Cancer Institute Cancer Mortality Maps & Graphs <http://ratecalc.cancer.gov/ratecalc/archivedatlas/>

NOTES: Mortality rates (number per 100,000) are extracted from the state and county mortality tables.

Childhood Leukemia Mortality Rates

	1950 - 1994		1970 - 1994							
	White Male Age 0 - 19	White Female Age 0 - 19	All White Male	All White Female	All Black Male	All Black Female	White Male Age 0 - 19	White Female Age 0 - 19	Black Male Age 0 - 19	Black Female Age 0 - 19
SAN JUAN, NM	2.0248	2.2313	6.0349	5.6321	0	0				
New Mexico	2.7781	2.2246	7.9332	4.7406	7.1348	1.8582	2.1673	1.595	0	2.1414

SOURCE: National Cancer Institute Cancer Mortality Maps & Graphs <http://ratecalc.cancer.gov/ratecalc/archivedatlas/>

NOTES: Mortality rates (number per 100,000) are extracted from the state and county Leukemia mortality tables.

Adult Lymphoma Mortality Rates

	1950 - 1994		1970 - 1994							
	White Male Age 20 - 49 Age 50 - 74 Age 75+	White Female Age 20 - 49 Age 50 - 74 Age 75+	All White Male	All White Female	All Black Male	All Black Female	White Male Age 20 - 49 Age 50 - 74 Age 75+	White Female Age 20 - 49 Age 50 - 74 Age 75+	Black Male Age 20 - 49 Age 50 - 74 Age 75+	Black Female Age 20 - 49 Age 50 - 74 Age 75+
SAN JUAN, NM	1.7792 15.7515 33.8555	.7102 11.1054 30.4548	5.7301	3.7585	0	0				
New Mexico	1.7706 13.014 38.6452	.9276 9.7311 34.1661	5.5021	3.978	5.3146	3.6743	1.9204 13.7231 45.4862	.9477 10.506 36.919	0 21.4833 15.0658	

SOURCE: National Cancer Institute Cancer Mortality Maps & Graphs <http://ratecalc.cancer.gov/ratecalc/archivedatlas/>

NOTES: Mortality rates (number per 100,000) are extracted from the state and county Non-Hodgkin's Lymphoma mortality tables.

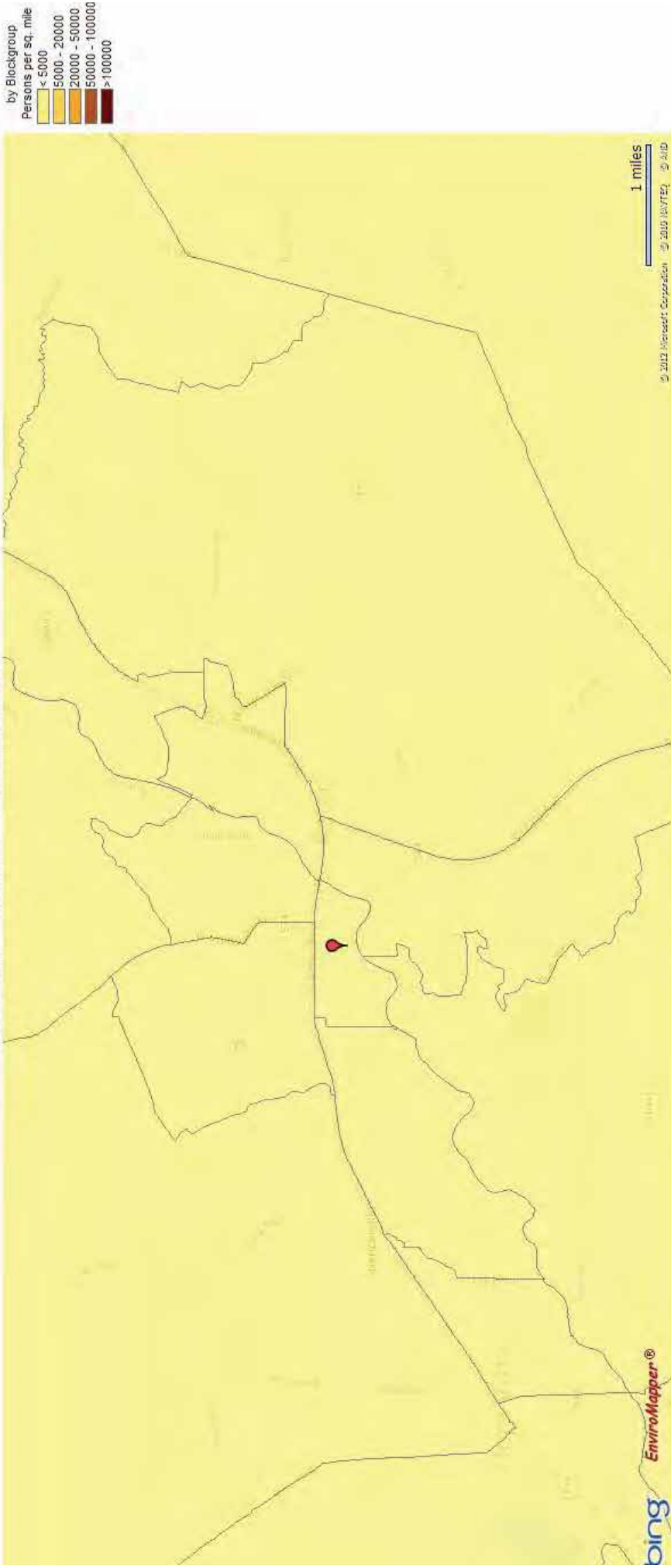
Lung Cancers Mortality Rates

	1950 - 1994		1970 - 1994							
	White Male Age 0 - 19	White Female Age 0 - 19	All White Male	All White Female	All Black Male	All Black Female	White Male Age 0 - 19	White Female Age 0 - 19	Black Male Age 0 - 19	Black Female Age 0 - 19
SAN JUAN, NM	0	.3188	50.1945	22.2068	47.6531	0				
New Mexico	.0242	.0558	49.4622	20.1564	69.9306	19.8963	.0202	.0782	0	0

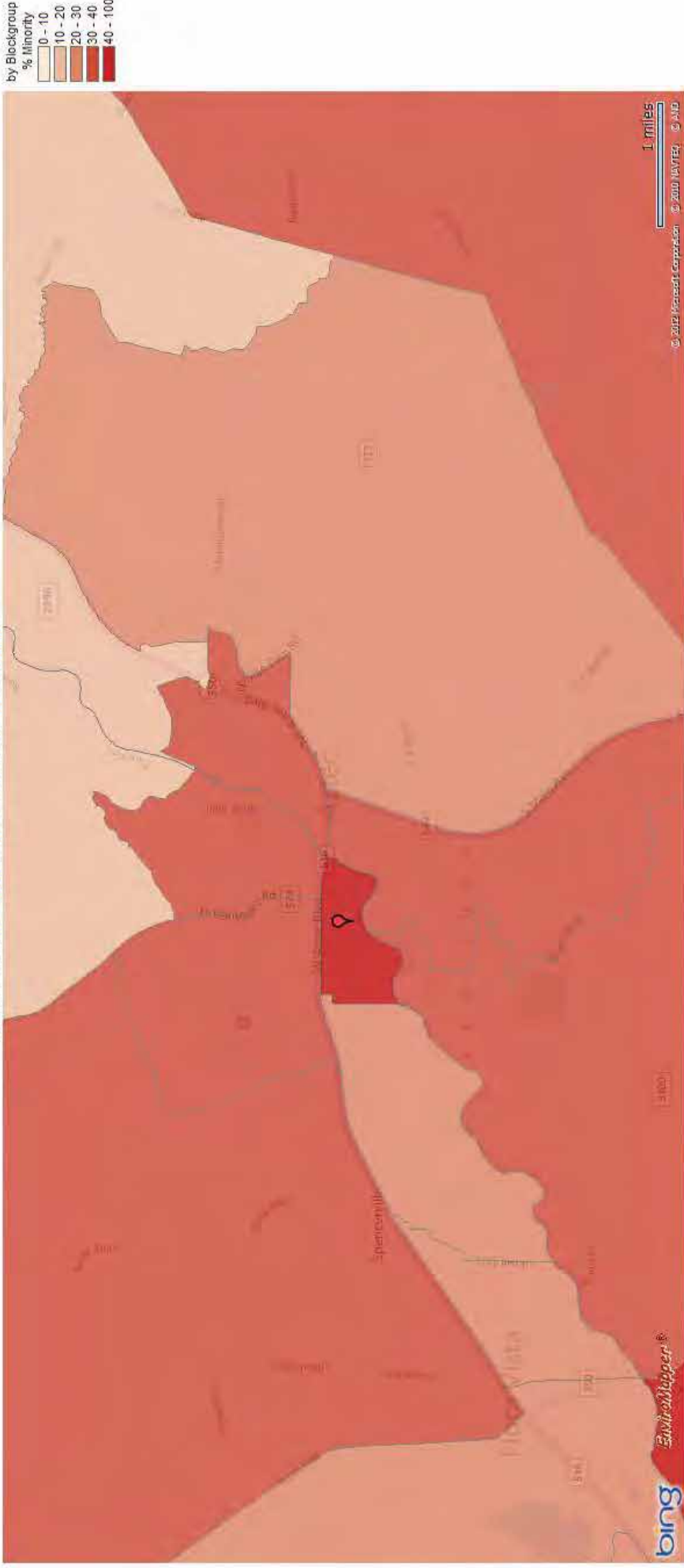
SOURCE: National Cancer Institute Cancer Mortality Maps & Graphs <http://ratecalc.cancer.gov/ratecalc/archivedatlas/>

NOTES: Mortality rates (number per 100,000) are extracted from the state and county mortality tables.

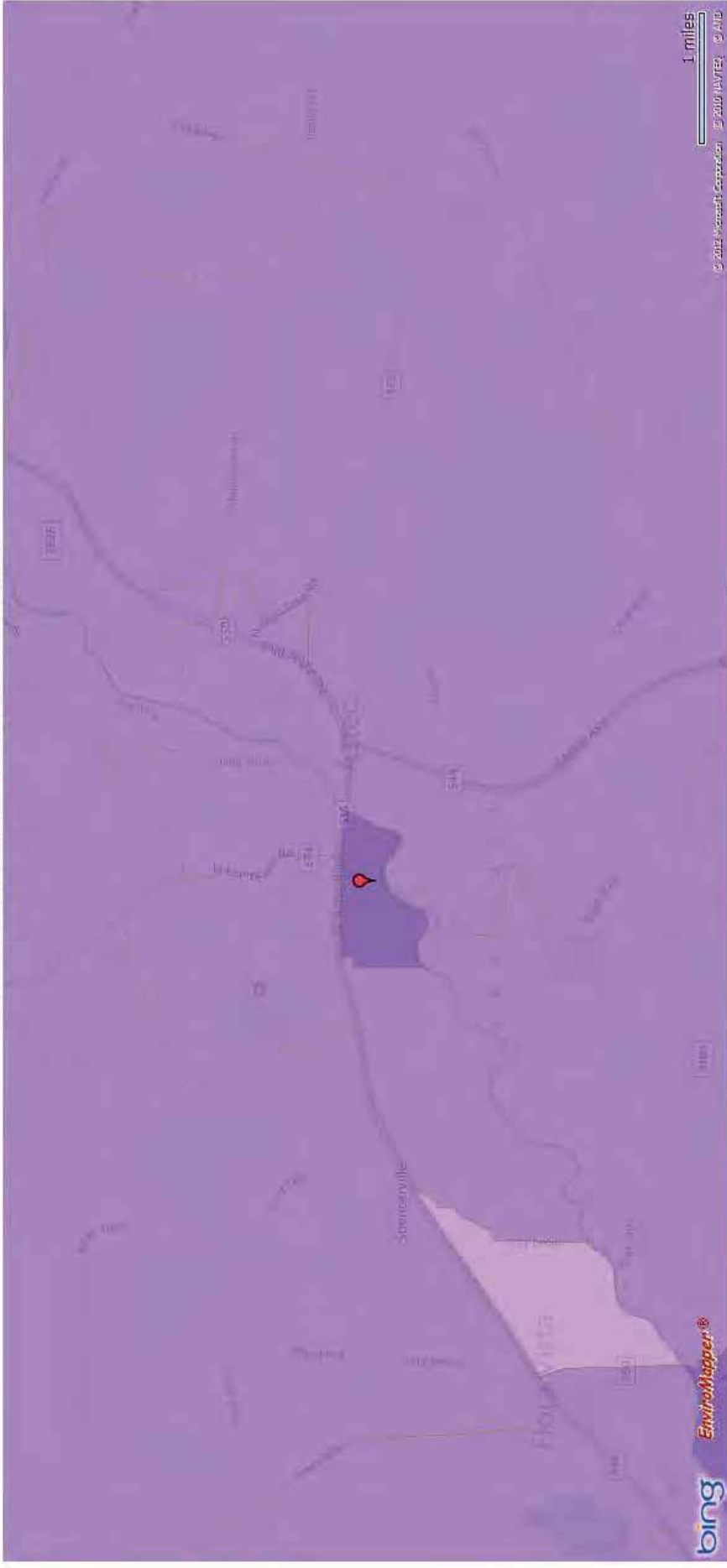
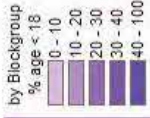
Aztec Sewer Outfall Line - Population Density



Aztec Sewer Outfall Line - Minority Percentage



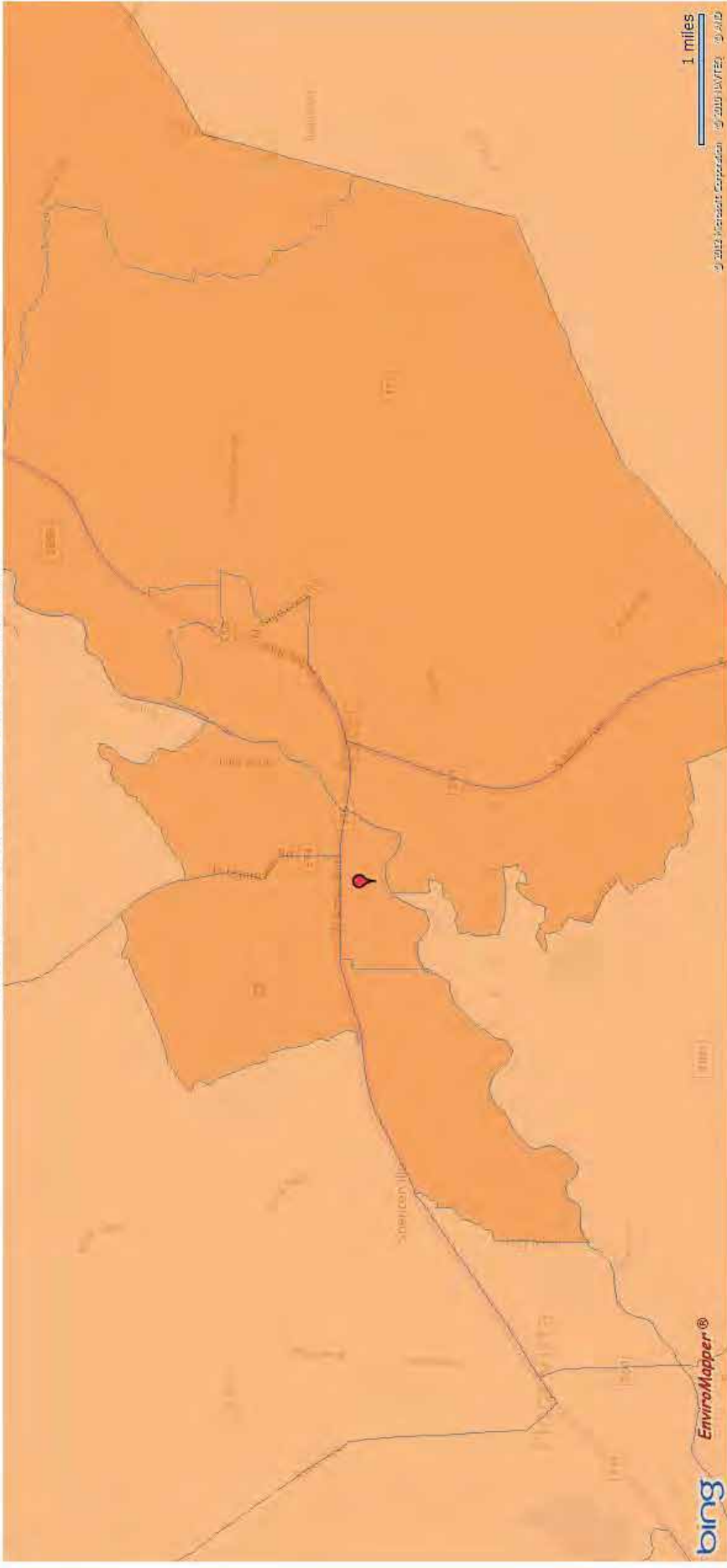
Aztec Sewer Outfall Line - Minor (age) Percentage



Aztec Sewer Outfall Line - Female Percentage

by Blockgroup
PCT_FEMALES

10 - 30
30 - 45
45 - 50
50 - 55
55 - 100



Aztec Sewer Outfall Line - Renter Percentage



APPENDIX F

Consultation and Coordination Documentation

Aztec Sewer Outfall Line
Consultation and Coordination Documentation
Contents

- Copy of Agency Scoping Letter template w/ maps (5 pages)
- Agency Tracking Table (5 pages)
- Agency Responses (letters and emails) in order as listed in the Tracking Table (60 pages)
- Tribal Consultation Tracking Table (2 pages)
- Tribal Consultation letters (40 pages)

September 25, 2012

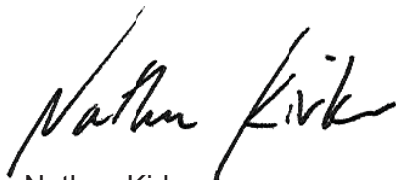
Agency
Address

RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

The review process requires coordination with pertinent agencies and interested parties. Your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by October 26, 2012. If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. You may FAX the form to 970-259-0050.

To provide verbal comments or for more information, please feel free to call me.



Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☐ has no comments.

Signature: _____ Date: _____

Name: _____ Title: _____

PROJECT SUMMARY

SEWER OUTFALL LINE REPLACEMENT

CITY OF AZTEC

SAN JUAN COUNTY, NEW MEXICO

The City of Aztec (City) proposes to install a 24" sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico. The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from West Chaco St. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows just north of the Elledge Mill Ditch north of the Animas River (Figure 1). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Southwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on City of Aztec property as well as across easements obtained or sought from San Juan County and privately owned lands.

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are

expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects –APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

The Class II inventory of the proposed Aztec Sewer Outfall Line yielded two previously recorded sites (LA 15235 and LA 122905) and one undocumented prehistoric site (possibly associated with the nearby LA 15186) within the area surveyed. Also, one undocumented historic ditch segment (Ellidge Mill Ditch) crosses and parallels the proposed project area. A segment of the ditch has been previously documented (LA 68214); however, eligibility to the National Register of Historic Places has not been determined for the segment. A Class III inventory is currently being conducted by El Morro CRM to identify and document all cultural resources within the project area, and to determine eligibility and protection measures for cultural resources.

Aztec Ruins, 0.6 mile to the north, has been identified as a Navajo affiliated TCP and retains significance for modern Pueblo groups. Aztec Ruins (*Kin niteel* or Wide House) is a place sacred to the Navajo, with numerous chantway and rite associations (Van Valkenburgh 1974:141).

A preliminary biological assessment was conducted for the proposed action in 2010 with follow-up field visits conducted in August 2012 to reevaluate the potential for species listed under the Endangered Species Act to occur in the project area. A “may affect, not likely to adversely affect” determination is warranted for the southwestern willow flycatcher and the whooping crane due to the presence of marginal/poor habitat within or adjacent to the project area and the unlikely-hood that either species would occur in the general area. These effects are therefore insignificant and discountable. A “no effect” determination is warranted for all other federal species with potential to occur in San Juan County, New Mexico.

Funding sources include a Clean Water State Revolving Fund loan of federal funds administered by the New Mexico Environment Department, Construction Programs Bureau and City of Aztec utility funds.

PROJECT LOCATION:

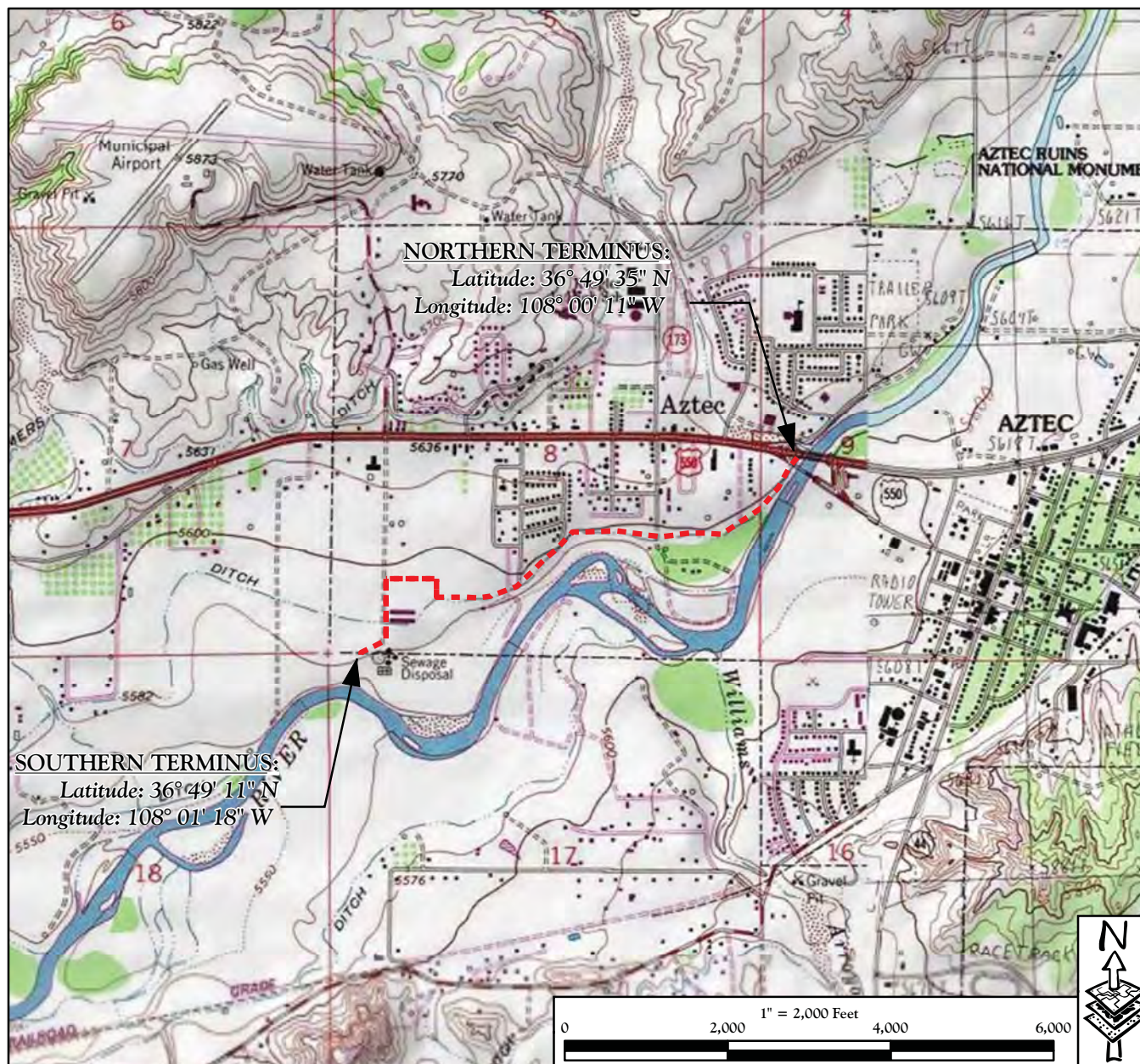
Sections 8, 9, and 17
Township 30 North, Range 11 West
New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

AERIAL SITE MAP
AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 2

Source: Aerial Photo Taken in 2009
Provided by N.A.I.P. (USDA)

<p align="center">City of Aztec – Sewer Outfall Line</p> <p align="center">AGENCY COORDINATION TRACKING TABLE</p>					
AGENCY/PARTY	PHONE NUMBER	DATE SENT	DATE REC'D	DATE FOLLOW-UP	COMMENTS (responses provided where appropriate)
Director NM Historic Preservation Division Department of Cultural Affairs 407 Galisteo Street, Suite 236 Santa Fe, NM 87501		9.27.12	10.31.12 11.21.12 9.12.13 12.23.15	11.09.12 9.04.13 12.21.15	Arch Report submitted to SHPO 11.09.12. SHPO concurrence received 11.21.12 with request for a monitoring plan. Monitoring Plan submitted to SHPO 9.04.13. SHPO acceptance of monitoring plan received 9.12.13. SHPO determination of no adverse effect to ditch received 12.23.15 Response: Dykeman Roebuck Archaeology is under contract to provide construction monitoring per the approved monitoring plan.
U.S. Department of Interior - National Park Service Intermountain Region 12795 Alameda Pkwy Lakewood, CO 80228		9.27.12	10.18.12		No Comment
Field Supervisor U.S. Fish and Wildlife Service NM Ecological Services Field Office 2105 Osuna NE Albuquerque, NM 87113-1001	505- 346-2525	9.27.12	10.24.12		Comply with ESA, MBTA, and CWA Section 404 as applicable. Comply with Executive Orders 11988 and 11990 as applicable (not applicable for proposed action). Contact NMDGF and NM Forestry Division for State species. Letter included directions on how to obtain a list of federal species for the project area. Response: City has complied and consulted with agencies and laws indicated.
Debra M. Hill Fish and Wildlife Biologist USFWS-NMESFO 2105 Osuna NE Albuquerque, NM 87113	505- 761-4719	8.29.12	8.30.12		SWFL habitat poor. All work should be done outside of the migratory bird nesting season (April 15- August 15), unless there is a biological monitor on site to ensure no nests are removed. Response: Stipulation has been applied to the EID and BA.

Eric Hein Terrestrial Biologist USFWS-NMESFO 2105 Osuna NE Albuquerque, NM 87113	505- 761-4735	12.28.15	1.19.16		Discussed New Mexico meadow jumping mouse habitat potential. Response: Mr. Hein's input was used to draft the Biological Assessment Addendum.
Chief NM Department of Game and Fish Conservation Services Division P.O. Box 25112 Santa Fe, NM 87504	505- 222-4708	9.27.12	10.05.12		Include stipulations to protect wildlife from open trenches. With stipulations, NMDGF concludes adverse effects to wildlife or wildlife habitat would be unlikely. NMDGF recommends contacting the USFWS for federal species lists. Response included a list of state listed species and sensitive species with no recommendations or suggestions for how to use the list. Response: Open trench stipulation has been included in EID. USFWS has been contacted. SME revised the included list to eliminate any species that would be highly unlikely to occur in the project area vicinity.
Rare/Endg. Plants Specialist NM Energy, Minerals, and Natural Resources Dpt. - Forestry Division 1220 S. St. Francis Drive Santa Fe, NM 87505-1948	505- 476-3325	9.27.12	10.10.12		No Comment
Chief U.S. Army Corps of Engineers - Albuquerque District Regulatory Br. 4101 Jefferson Plaza NE Albuquerque, NM 87109-3435 Chris Wrbas Project Manager USACE Durango Colorado Field Off. 1970 East 3 rd Ave., Suite 109 Durango, CO 81301	970- 259-1947	9.27.12	10.05.12 7.30.14	11.08.12 11.15.12 12.13.12 10.31.14 12.16.15	Wetland Delineations provided to USACE on 11.15.12, 10.31.14, and 12.16.15. Nationwide Permit Notification provided to USACE on 12.13.12, later rescinded. Jurisdictional Determinations provided by USACE on 7.30.14 Response: SME has identified waters of the US within the project area, as verified by the USACE. SME is working with Mr. Chris Wrbas USACE to complete the 404/401 permitting process.

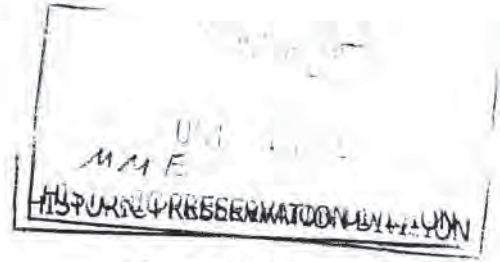
State Conservationist USDA Nat. Rsc. Con. Svc. New Mexico State Office 6200 Jefferson NE Albuquerque, NM 87109-3734	505- 761-4435	9.27.12	10.15.12		Proposed action not subject to Farmland Protection Policy Act; no effects to prime or unique farmland. Response: Noted in EID.
Environmental Impact Review Coord. New Mexico Environment Dept. Office of General Council P.O. Box 5469 Santa Fe, NM 87502-5469		9.27.12	11.02.12		No Comment
Chief New Mexico Environment Dept. Surface Water Quality Bureau P.O. Box 5469 Santa Fe, NM 87502-5469		9.27.12	(see Neal Schaeffer below)		SME has been informed by the USACE (Chris Wrbas) that USACE will coordinate directly with SWQB (Neal Schaeffer) for Section 401 Water Quality Certification. Response: SME is working with Mr. Wrbas to provide any information needed for SWQB to grant Water Quality Certification.
Neal Schaeffer CWA § 401 Certification Prog. Coord. New Mexico Environment Dept. Surface Water Quality Bureau P.O. Box 5469 Santa Fe, NM 87502-5469	505- 476-3017		11.20.12 01.07.13	11.20.12	Initially requested more information on areas that would be directly impacted. Later, request that all plans be finalized and funding be secured before SWQB will review the project for Section 401 Water Quality Certification. Response: City is working to finalize and fund project to comply with SWQB requests.
Chief New Mexico Environment Department Air Quality Bureau 1301 Siler Road Santa Fe, NM 87507		9.27.12			See Rita Bates below.
Rita Bates Sect. Chief, Planning and Policy New Mexico Environment Department Air Quality Bureau 1301 Siler Road Santa Fe, NM 87507	505- 476-4304	12.28.12	12.28.12		Dust control measures should be taken to minimize the release of particulates. Response: Dust mitigation stipulation has been included in EID.

NM Department of Transportation Environmental Design Bureau 604 W. San Mateo 2nd Floor, Room 406 Santa Fe, NM 87504-1149		9.27.12	10.23.12 10.11.13 6.24.14	01.24.13 c. 6.24.14	Provide to NMDOT: a description of how project will avoid effects to the NM 516 bridges (potential archaeological resources), a copy of the Arch Report, a copy of the Biological Assessment, information regarding wetland delineation, information regarding CWA 401 and 404 compliance. Environmental Clearance provided on 10.11.13 and 6.24.14. Response: Requested information supplied to NMDOT on 1.24.13. Request for clearance on additional easement provided to NMDOT on about 6.24.14.
Federal Emergency Mgmt. Agency Region VI 800 N. Loop 288 Denton, TX 76209-3698	940- 898-5541	9.27.12	10.12.12		Contact the local floodplain administrator Comply with Executive Orders 11988 and 11990 as applicable (not applicable for proposed action). Response: SME contacted Roshana Moojen, CFM City of Aztec (see below).
Roshana Moojen, CFM City of Aztec Community Development Dept. 201 W. Chaco St. Aztec, NM 87410		9.27.12	10.17.12		No Comment
Tom Gabehart Elledge Mill Ditch P.O. Box 274 Flora Vista, NM 87415		9.27.12	10.23.12		Avoid impacts to Elledge Mill Ditch. Response: Crossing of the ditch will be conducted when the ditch isn't flowing. The crossing will be returned to better than previous condition with the installation of a larger culvert at the crossing.
Center for Biological Diversity New Mexico Field Office 503 W. Spring St. Silver City, NM 88061-4844		9.27.12			No reply to date.
Forest Guardians 312 Montezuma Santa Fe, New Mexico		9.27.12			No reply to date.

San Juan Citizens Alliance 108 North Behrend, Suite I Farmington, NM 87401		9.27.12			No reply to date.
San Juan Water Commission 7450 East Main Street - Suite B Farmington, NM 87402		9.27.12	10.02.12		No Comment

September 25, 2012

Director
New Mexico Historic Preservation Division
Department of Cultural Affairs
407 Galisteo Street, Suite 236
Santa Fe, NM 87501



RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

The review process requires coordination with pertinent agencies and interested parties. Your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by October 26, 2012. If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. You may FAX the form to 970-259-0050.

To provide verbal comments or for more information, please feel free to call me.

Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☐ has no comments.

Signature: Date: 10-26-12

Name: Michelle Ensey Title: Archaeologist

Cannot concur with the determination until the Class III cultural resource survey report and associated records are submitted for review.



EL MORRO CULTURAL RESOURCE MANAGEMENT



JESSE B. MURRELL, RPA

PHONE: (505) 979-0672

P.O. BOX 6427

EMAIL: MURRELL@EL-MORRO.COM

FARMINGTON, NEW MEXICO 87499 WWW.EL-MORRO.COM

Michelle M. Ensey
Archaeologist
New Mexico Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, New Mexico 87501



15 November 2012

Dear Michelle,

Please find one copy of El Morro CRM Report No. 2012-SME-01 entitled *Cultural Resource Inventory for the City of Aztec Sewer Outfall Line in San Juan County, New Mexico*. SME Environmental, Inc. retained El Morro CRM on behalf of the City of Aztec to conduct the inventory in advance of the proposed construction of a sewer outfall line that extends from the Aztec Wastewater Treatment Facility to New Mexico Highway 516 near its crossing of the Animas River. The New Mexico Environment Department is a sponsor of the proposed undertaking. The New Mexico Department of Transportation will also review this report.

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the field survey. Site LA 68214 is an in-use segment of the Elledge Mill ditch. During the most recent previous recording, the ditch was recommended to be eligible for listing in the National Register of Historic Places (NRHP) under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation. Site LA 122905 is the in-use Chaco Street bridge (New Mexico Department of Transportation Bridge No. 119) over the Animas River. A State Historic Preservation Office determination of eligibility for site LA 122905 was made on 16 May 2008. The site was determined to be eligible for listing in the NRHP under Criteria A and C. There was no reason to reevaluate this determination of eligibility.

A single previously recorded site—LA 15235—was not relocated in the current survey area. The site was originally encountered in an area currently occupied by the Aztec Wastewater Treatment Facility. During the most recent previous update, no surface manifestation of the site was observed and the recorder offered no treatment recommendations for a wastewater facilities improvement project. NRHP eligibility was not determined. During construction for the improvements to the facility, prehistoric human remains were discovered within or in close proximity to the site. The remains were reinterred at site LA 168259. During the current investigation, no surface manifestation of the site LA 15235 was observed. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

The proposed undertaking should have *no adverse effect* on historic properties if the recommendations offered below are followed. The project proponents intend to bore under the Elledge Mill ditch. The ditch should not be impacted. Construction activities will take place under the Chaco Street bridge and at a sufficient distance from its surface features. The bridge should not be impacted. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered. Bridge

construction was moved to avoid additional remains. For this reason along with the close proximity of two prehistoric sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. The archaeologist should also monitor all initial ground-disturbing construction activities within LA 15235 and the Aztec Wastewater Treatment Facility.

Please contact me if you require additional information or have questions concerning these results or recommendations.

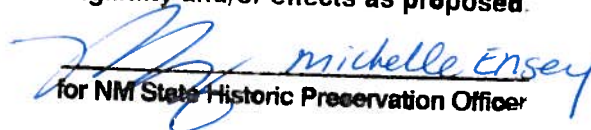
Best Regards,



Jesse B. Murrell, RPA
Principal Investigator
El Morro CRM, LLC

Concur with recommendation of
eligibility and/or effects as proposed.

11-21-12



Michelle Ensey
for NM State Historic Preservation Officer

Please submit an archaeological
monitoring plan for review &
approval prior to starting work.

Nathan Kirker

From: Carole Graham <carole@woodscanyon.net>
Sent: Wednesday, September 04, 2013 3:51 PM
To: Nathan Kirker
Cc: Michelle Ensey; Blake Roxlau; Jerry Fetterman
Subject: Aztec sewer line monitoring plan
Attachments: Aztec_Sewer_Monitoring_Plan_sm.pdf; ATT234429.txt

Hello Nathan,

Our proposed monitoring plan for the Aztec Outfall Sewer Line project is attached. I am also sending the plan to Michelle Ensey at NM Historic Preservation Division and to Blake Roxlau at NMDOT for their approval. Thanks for your assistance in preparing the monitoring plan.

Please let me or Jerry Fetterman know if you have any questions or concerns.

Carole Graham
Archaeologist

Email: carole@woodscanyon.net
Phone: 970-564-9640

Woods Canyon Archaeological Consultants, Inc.
206 N. Washington St.
Cortez, CO 81321
www.woodscanyon.net



STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

Susana Martinez
Governor

September 12, 2013

Carole Graham
Woods Canyon Archaeological Consultants, Inc.
carole@woodscanyon.net

RE: Monitoring Plan for the City of Aztec's Planned Sewer Outfall Line

Dear Ms. Graham:

Thank you for providing the State Historic Preservation Office (SHPO) with a copy of the above referenced monitoring plan. I have reviewed the plan and find that it conforms to the Cultural Properties Review Committee's rule 4.10.17, Standards for Monitoring. The monitoring portion of Woods Canyon Archaeological Consultant's General Archaeological Investigation Permit (NM-13-037-M) is activated and monitoring may proceed as outlined in the plan.

Please do not hesitate to contact me if you have any questions. I can be reached by telephone at (505)827-4064 or by email at michelle.ensey@state.nm.us.

Sincerely,

Michelle M. Ensey
Archaeologist

Log: 97649
Cc: Genevieve Head, NMDOT

Nathan Kirker

From: Ensey, Michelle, DCA
Sent: Wednesday, December 23, 2015 11:18 AM
To: Nathan Kirker
Cc: William L Watson; Bishop, David, NMENV
Subject: RE: Aztec Sewer Project Detail Updates for EA

Nathan,

Thank you for providing this information on the change in scope of work. The new culvert, although bigger than the current culvert, will not result in an adverse effect to the Elledge Mill ditch. My previous determination that the project will have No Adverse Effect on historic properties stands.

Sincerely,

Michelle M. Ensey
Archaeologist
NM State Historic Preservation Office
407 Galisteo Street, Ste. 236
Santa Fe, NM 87501
(505) 827-4064
www.nmhistoricpreservation.org

From: Nathan Kirker [mailto:nkirker@sme-env.com]
Sent: Monday, December 21, 2015 9:42 AM
To: Ensey, Michelle, DCA
Cc: William L Watson; Bishop, David, NMENV
Subject: Aztec Sewer Project Detail Updates for EA

Michelle,

This email is in regards to a sewer line project in the City of Aztec that you provided consultation and concurrence on in 2012 and 2013 (see attached). The proposed alignment would cross the Elledge Mille Ditch at S. Oliver Drive; the sewer is aligned within and parallel to the paved roadway. The original cultural report that you provided concurrence on concluded that:

“During the most recent previous recording by Marron and Associates, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation.

Recommendations

The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. No further archaeological investigation at the site is warranted in relation to the currently proposed undertaking.”

Since the preparation of this report, the project proponent (the City of Aztec) now proposes to replace the existing culvert that carries the Elledge Mill Ditch under S. Oliver Drive during installation of the sewer line. The new culvert would be 8 feet wide, 6 feet tall and 40 feet long. The current culvert is a 5-foot diameter corrugated metal pipe. The replacement is intended to replace the deteriorating metal pipe. In addition, the increased volume of the culvert would improve ditch flow and reduce debris constriction at S. Oliver Drive (see attached photos). The construction would

occur within the City's sewer easement and road ROW when the ditch is turned off (outside of the irrigation season). Attached are photos of the existing culvert as viewed from S. Oliver Drive. The State is partly funding this project under the Clean Water State Revolving Fund managed by NMED. David Bishop with NMED has asked that we contact you to review the project changes and provide acceptance (below email). Please feel free to contact me for any additional detail. Thanks.

Nathan Kirker
Biologist



ENVIRONMENTAL CONSULTANTS
679 East 2nd Avenue Unit E2
Durango, Colorado 81301
(o) 970-403-0583
(c) 970-946-9899
(f) 970-259-0050
www.sme-env.com

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From: Bishop, David, NMENV [mailto:David.Bishop@state.nm.us]
Sent: Friday, December 18, 2015 9:27 AM
To: Nathan Kirker
Cc: William Watson; seddings@huitt-zollars.com
Subject: RE: Aztec Sewer Project Detail Updates for EA

Nathan,

Yes, SME on behalf of the City needs to consult with both SHPO and NMDOT. Please prepare written request for both agencies seeking their review and approval of the revisions made to made to the project. If necessary follow up with telephone call and/or meeting same as was conducted during the initial review.

David E. Bishop, P.E.
Project Manager
New Mexico Environment Department
Construction Programs Bureau
121 Tijeras Avenue, NE
Suite 1000
Albuquerque, NM 87102-3400
(505) 222-9567 (office)
(505) 222-9510 (fax)

September 25, 2012

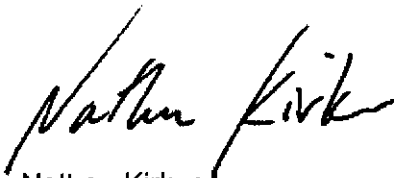
U.S. Department of Interior - National Park Service
Intermountain Region
12795 Alameda Pkwy
Lakewood, CO 80228

RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

The review process requires coordination with pertinent agencies and interested parties. Your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by October 26, 2012. If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. You may FAX the form to 970-259-0050.

To provide verbal comments or for more information, please feel free to call me.



Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050



The National Park Service reviewed this project and determined that no parks will be affected; therefore, we have no comments.

Signed:  Date: 10/1/12

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☐ has no comments.

Signature: _____ Date: _____

Name: _____ Title: _____



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office
2105 Osuna NE

Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

Thank you for your recent request for information on threatened or endangered species or important wildlife habitats that may occur in your project area. The New Mexico Ecological Services Field Office has posted lists of the endangered, threatened, proposed, candidate and species of concern occurring in all New Mexico Counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: http://www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm. If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find New Mexico Listed and Sensitive Species Lists on the main page and click on the county of interest. Your project area may not necessarily include all or any of these species. This information should assist you in determining which species may or may not occur within your project area.

Under the Endangered Species Act of 1973, as amended (Act), it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with us further. Similarly, it is their responsibility to determine if a proposed action has no effect to endangered, threatened, or proposed species, or designated critical habitat. On December 16, 2008, we published a final rule concerning clarifications to section 7 consultations under the Act (73 FR 76272). One of the clarifications is that section 7 consultation is not required in those instances when the direct and indirect effects of an action pose no effect to listed species or critical habitat. As a result, we do not provide concurrence with project proponent's "no effect" determinations.

If your action area has suitable habitat for any of these species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts. Please keep in mind that the scope of federally listed species compliance also includes any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects.

Candidates and species of concern have no legal protection under the Act and are included on the web site for planning purposes only. We monitor the status of these species. If significant declines are detected, these species could potentially be listed as endangered or threatened. Therefore, actions that may contribute to their decline should be avoided. We recommend that candidates and species of concern be included in your surveys.

Also on the web site, we have included additional wildlife-related information that should be considered if your project is a specific type. These include communication towers, power line safety for raptors, road and highway improvements and/or construction, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. We recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands. These habitats should be conserved through avoidance, or mitigated to ensure no net loss of wetlands function and value.

The Migratory Bird Treaty Act (MBTA) prohibits the taking of migratory birds, nests, and eggs, except as permitted by the U.S. Fish and Wildlife Service. To minimize the likelihood of adverse impacts to all birds protected under the MBTA, we recommend construction activities occur outside the general migratory bird nesting season of March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until nesting is complete.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding fish, wildlife, and plants of State concern.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area.

Sincerely,



Wally Murphy
Field Supervisor

From: Debra_Hill@fws.gov
Sent: Thursday, August 30, 2012 7:16 AM
To: Nathan Kirker
Cc: Mike Huber
Subject: RE: City of Aztec Sewer Main Replacement - SWFL

Nathan-

This does not look like great habitat for the flycatcher- the height, density, and size of the patch (Overall patch size 0.06 acres) are marginal at best considering we do not have any known flycatchers in this area. The site also looks very dry. I would recommend minimizing the amount of vegetation being removed and all work should be done outside of the migratory bird nesting season (April 15- August 15), unless there is a biological monitor on site to ensure no nests are removed.

Thanks again and please let me know if you have any further questions,

Debra

Debra M. Hill
Fish and Wildlife Biologist
USFWS-NMESFO
2105 Osuna NE
Albuquerque, NM 87113
(505)761-4719

"Nathan Kirker" <nkirker@sme-env.com>

08/29/2012 05:27 PM

To <Debra_Hill@fws.gov>
cc "Mike Huber" <mhuber@aztecnm.gov>
Subject RE: City of Aztec Sewer Main Replacement - SWFL

Now, with an attachment.

From: Nathan Kirker
Sent: Wednesday, August 29, 2012 5:26 PM
To: 'Debra_Hill@fws.gov'
Cc: 'Mike Huber'
Subject: City of Aztec Sewer Main Replacement - SWFL

Debra,

Thanks for getting back to me Monday. Attached is a doc with photos and a couple quick maps. The sewer line replacement will replace the existing line in the same corridor and will require a 15-20 wide ROW. The line roughly follows the uphill side of the ditch (northwest) and roughly transects the length of the patch. Please let me know what you think about suitability and potential effects and feel free to call me on my cell with any questions.

Nathan Kirker
Biologist



ENVIRONMENTAL CONSULTANTS

555 Rivergate Lane, B1-101

Durango, Colorado 81301

(o) 970-403-0583

(c) 970-946-9899

(f) 970-259-0050

www.sme-env.com

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[attachment "SWFL habitat patch pictures_Aztec Sewer Replacement.pdf" deleted by Debra Hill/R2/FWS/DOI]



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 OSUNA ROAD NE
ALBUQUERQUE, NM 87113
PHONE: (505)346-2525 FAX: (505)346-2542
URL: www.fws.gov/southwest/es/NewMexico/;
www.fws.gov/southwest/es/ES_Lists_Main2.html

Consultation Code: 02ENNM00-2016-SLI-0202

December 16, 2015

Event Code: 02ENNM00-2016-E-00188

Project Name: Aztec Sewer Outfall

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act (MBTA) as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act (BGEPA) as amended (16 USC 668-668c). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area and to recommend some conservation measures that can be included in your project design.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

If you determine that your proposed action may affect federally-listed species, consultation with the Service will be necessary. Through the consultation process, we will analyze information

contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take "after-the-fact." For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

The scope of federally listed species compliance not only includes direct effects, but also any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects that may occur in the action area. The action area includes all areas to be affected, not merely the immediate area involved in the action. Large projects may have effects outside the immediate area to species not listed here that should be addressed. If your action area has suitable habitat for any of the attached species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico state agencies. These lists, along with species information, can be found at the following websites:

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program:
www.emnrd.state.nm.us/SFD/ForestMgt/Endangered.html

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service's Migratory Bird Office. To minimize the likelihood of adverse impacts to migratory birds, we recommend construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged.

We recommend review of Birds of Conservation Concern at website www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html to fully evaluate the effects to the birds at your site. This list identifies birds that are potentially threatened by disturbance and construction.

BALD AND GOLDEN EAGLES

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA on August 9, 2007. Both the bald eagle and golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to "disturb" eagles. Under the BGEPA, the Service may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For information on bald and golden eagle management guidelines, we recommend you review information provided at www.fws.gov/midwest/eagle/guidelines/bgepa.html.

On our web site www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm, we have included conservation measures that can minimize impacts to federally listed and other sensitive species. These include measures for communication towers, power line safety for raptors, road and highway improvements, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

We also suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State fish, wildlife, and plants.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. For further consultation on your proposed activity, please call 505-346-2525 or email nmesfo@fws.gov and reference your Service Consultation Tracking Number.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Aztec Sewer Outfall

Official Species List

Provided by:

New Mexico Ecological Services Field Office

2105 OSUNA ROAD NE

ALBUQUERQUE, NM 87113

(505) 346-2525

<http://www.fws.gov/southwest/es/NewMexico/>

http://www.fws.gov/southwest/es/ES_Lists_Main2.html

Consultation Code: 02ENNM00-2016-SLI-0202

Event Code: 02ENNM00-2016-E-00188

Project Type: WASTEWATER PIPELINE

Project Name: Aztec Sewer Outfall

Project Description: Sewer Outfall Line Replacement

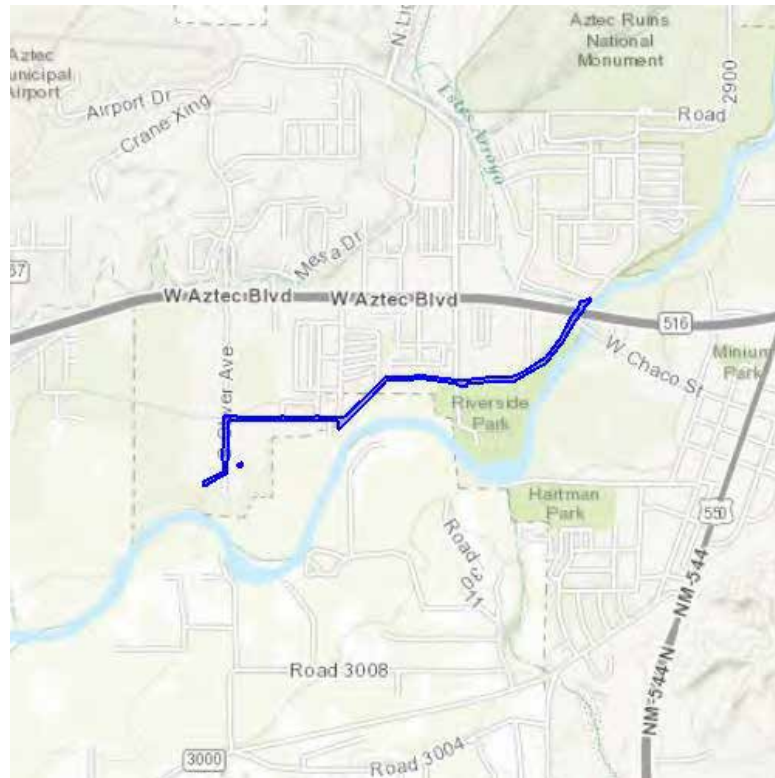
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Aztec Sewer Outfall

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: San Juan, NM



United States Department of Interior
Fish and Wildlife Service

Project name: Aztec Sewer Outfall

Endangered Species Act Species List

There are a total of 11 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Southwestern Willow flycatcher (<i>Empidonax traillii extimus</i>) Population: Entire	Endangered	Final designated	
Sprague's Pipit (<i>Anthus spragueii</i>)	Candidate		
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS	Threatened	Proposed	
Fishes			
Colorado pikeminnow (<i>Ptychocheilus lucius</i>) Population: Entire, except EXPN	Endangered	Final designated	
Razorback sucker (<i>Xyrauchen texanus</i>) Population: Entire	Endangered	Final designated	
Zuni Bluehead Sucker (<i>Catostomus discobolus yarrowi</i>)	Endangered	Proposed	
Flowering Plants			



United States Department of Interior
Fish and Wildlife Service

Project name: Aztec Sewer Outfall

Knowlton's cactus (<i>Pediocactus knowltonii</i>)	Endangered		
Mancos milk-vetch (<i>Astragalus humillimus</i>)	Endangered		
Mesa Verde cactus (<i>Sclerocactus mesae-verdae</i>)	Threatened		
Mammals			
Canada Lynx (<i>Lynx canadensis</i>) Population: Contiguous U.S. DPS	Threatened	Final designated	
New Mexico meadow jumping mouse (<i>Zapus hudsonius luteus</i>)	Endangered	Proposed	If project affects dense herbaceous riparian vegetation along waterways (stream, seep, canal/ditch).



United States Department of Interior
Fish and Wildlife Service

Project name: Aztec Sewer Outfall

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Nathan Kirker

From: Hein, Eric
Sent: Tuesday, January 19, 2016 10:36 AM
To: Nathan Kirker
Subject: Re: FW: NMMJM - Aztec Sewer Outfall Project
Attachments: image001.jpg

Morning Nate:

Sorry, my email went out last week on my laptop. Frustrating!

Anyhow, here are few suggestions. The cattail area and area with no herbaceous understory is not jumping mouse habitat. The other areas look very marginal at best for the jumping mouse, particularly since it is in an urbanized area. The species uses dense herbaceous riparian habitat composed primarily of sedges and forbs. Suitable habitat would be at least 24 inches in height and the soils would be moist/saturated. Picture walking through the vegetation...if you cannot see your feet, then the habitat is considered dense. Also, if you were in socks and they became soaked quickly, then the soils would be adequately saturated. With those attributes in mind, you can determine whether the area may contain suitable jumping mouse habitat. If not, then you do not need to seek concurrence from the Fish and Wildlife Service. Just document how you reached your conclusion in the project record. If you think the project area contains suitable habitat, I would suggest constructing the project outside of the active season when the canal is dry (June to October is the active season). Additionally, try to locate the sewer line in areas that do not contain suitable herbaceous riparian habitat.

Hope this helps.

Eric

On Wed, Jan 13, 2016 at 4:54 PM, Nathan Kirker <nkirker@sme-env.com> wrote:

Eric,

My work load is pretty thin right now, and this is a high priority project. If there is anything you could do to bump this up in your queue, that would be greatly appreciated by me. Thanks for your consideration.

Nathan Kirker

Biologist



679 East 2nd Avenue Unit E2

Durango, Colorado 81301

(o) 970-403-0583

(c) 970-946-9899

(f) 970-259-0050

www.sme-env.com

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From: Nathan Kirker [mailto:nkirker@sme-env.com]
Sent: Monday, January 11, 2016 4:13 PM
To: 'Hein, Eric'
Subject: RE: FW: NMMJM - Aztec Sewer Outfall Project

Hi Eric,

I got your message that you will be out this week. Communicating by email is fine as I wanted to get some photos to you anyhow. I was hoping you could provide some cursory evaluation of our situation and provide some guidance on moving forward. The project we are working on is a 24" sewer line replacement along the Animas River in Aztec, San Juan County, NM.

Based on the literature and my limited experience with the mouse, I would have to say that there may be some suitable habitat within our project area that would be impacted. The habitat in the project area is limited to narrow (mostly 2-3 feet wide, 6-8 ft wide at the widest) sedge dominated irrigation ditch fringe. The ditch flows during the growing season. I've only been to one location where the mouse occurs at near Sambrito Creek in Colorado, but I've been told that that area is not typical of NMMJM habitat as the mouse uses upland sagebrush in the summer there (possibly due to the limited availability of suitable habitat). I'm not entirely sure, but to me I'm thinking that that habitat in the project area may be less than ideal as the majority of habitat, and the densest and tallest sedge, is located on the near vertical banks of the ditch (see attached photo). In addition, there is limited secondary habitat such as adjacent grassland or forbs. The habitat is located along the edge of a ditchside road. The far side of the road contains some

areas of cattail dominated wetland, otherwise the habitat is riparian scrub-shrub with limited understory, ruderal areas that receive occasional clearing, a concrete river trail, and lawn grasses in an adjacent park. The surrounding uplands are populated with NM foresteria, willow, rabbitbrush, and cottonwood that could provide hibernacula habitat. I was hoping you could provide a professional opinion about the habitat suitability.

If you feel it needs analysis as suitable habitat, my main concern would be impacts to hibernating habitat. The project is a sewer line project just uphill of the ditch on the opposite side of the ditch from the best summer habitat. Excavation spoils may find their way into the ditch where the sewer is closest to the ditch. As a result, this section of the ditch was planned to be constructed when the ditch was turned off, I believe there are some arrangements to have the ditch turned off during construction, but the construction could also be conducted outside of the ditch operating season. Either way, there is potential to injure hibernating/nesting mice. I think any impacts to suitable riparian herbaceous habitat would be minimal. Can you suggest some feasible avoidance or mitigation measures in the case you feel the habitat is suitable? This project has been through a number of revamps in the past seven years and was quite near completion from a permitting standpoint until we caught wind of the mouse being included in San Juan County when we were reevaluating our 2012 BA for any needed updates. There is a lot of pressure locally to get this project completed. The sooner you could reply the better as I am trying to keep the ball rolling towards completion. Thank you for keeping in touch.

Nathan Kirker

Biologist



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From: Hein, Eric [mailto:eric_hein@fws.gov]
Sent: Monday, January 04, 2016 9:07 AM
To: Nathan Kirker
Subject: Re: FW: NMMJM - Aztec Sewer Outfall Project

Hi Nathan:

There are no historical or current records of the jumping mouse in San Juan County, but the county is certainly undersurveyed and it within the realm of possibilities the species could exist there. Frey 2011 (attached) suggested the jumping mouse may be present in other areas of the San Juan Basin. Consequently, the county was added to IPAC recently in order for proposed projects to evaluate the possibility of habitat and the species being present. If the project is not impacting suitable jumping mouse habitat, then there would be no effect on the species.

Thanks,

Eric

On Mon, Dec 28, 2015 at 1:36 PM, Nathan Kirker <nkirker@sme-env.com> wrote:

Eric,

Was hoping you could help clarify an urgent issue. I contacted George while you were out to get some clarification on the status of NMMJM in San Juan County (see below emails). I need to update a BA, and NMMJM has come up in my official list from IPAC from two weeks ago. This is catching me off guard on a project that is quickly reaching a funding deadline. NMMJM has never been on the San Juan County list since it was candidate (that I am aware of at least), and wasn't on a recent IPAC list from a month or so ago. Also, the ECOS species profile for NMMJM does not include San Juan County in the species' range. George's response below is not entirely clear, and he was out when I tried to follow-up. Can you please help to clarify the status, and provide any project specific information that may help in the event we need to address NMMJM (see attached). Thanks a bunch.

Nathan Kirker

Biologist



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From: Dennis, George [mailto:george_dennis@fws.gov]
Sent: Monday, December 21, 2015 12:24 PM
To: Nathan Kirker
Subject: Re: NMMJM - Aztec Sewer Outfall Project

Dear Mr. Kirker:

As to your specific question on the New Mexico meadow jumping mouse (*Zapus hudsonius*) there are no recent or historical records of the species from the Animas River in New Mexico.

I believe you mentioned on the telephone that you found the New Mexico meadow jumping mouse on your Information, Planning, and Conservation System (IPAC) list. I note that for some reason it is on the Trust Resource Report but not on the official letter that I generated for San Juan County. I am working to fix that discrepancy.

In New Mexico you can obtain an official letter on Federal trust resources from the U.S. Fish and Wildlife Service (Service) via IPAC.

You can access IPAC through our office website at

<http://www.fws.gov/southwest/es/newmexico/IPAC.cfm>

On this page there are instructions on how to use IPAC

http://www.fws.gov/southwest/es/newmexico/documents/IPAC_Help.pdf

and conservation measures for several project types (right side of the page).

On the “Tasks” page make sure you select the "Request an Official Species List" button to get an official letter.

If you make a no-effect determination for all species listed in your letter then no further consultation with the Service is necessary. Your official letter and determination table are your documentation of your environmental review.

If you determine that your project may adversely affect a federally listed species you can submit a request for further review by the Service or help with your review electronically at nmesfo@fws.gov.

Regards,
George Dennis

George D. Dennis III, Ph.D.
Collaborative Conservation Services and Administration Branch Chief
New Mexico Ecological Services Field Office
U.S. Fish and Wildlife Service
2105 Osuna Rd NE
Albuquerque, NM 87113
505-761-4754
george_dennis@fws.gov

On Mon, Dec 21, 2015 at 9:58 AM, Nathan Kirker <nkirker@sme-env.com> wrote:

Dennis,

SME is working with the City of Aztec to update an existing BA for a sewer line replacement project in Aztec, NM (see attached map). When conducting an IPaC search last week, I was surprised to see NM meadow jumping mouse come up as it has never previously been considered for San Juan County. The subject sewer line will follow the existing easement, replacing the old line. The line roughly follows just upslope of the Elledge Mill Ditch which is operated seasonally. I was hoping you could provide a more site specific analysis of the potential for occurrence. Thanks.

Nathan Kirker

Biologist



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--

Eric W. Hein
U.S. Fish and Wildlife Service

New Mexico Ecological Services Field Office

2105 Osuna NE

Albuquerque, New Mexico 87113

505-761-4735

--

Eric W. Hein
U.S. Fish and Wildlife Service
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
505-761-4735



STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way
Santa Fe, NM 87507
Post Office Box 25112
Santa Fe, NM 87504
Phone: (505) 476-8008
Fax: (505) 476-8124

DIRECTOR AND SECRETARY
TO THE COMMISSION
James S. Lane, Jr.

Daniel E. Brooks, Deputy Director

Visit our website at www.wildlife.state.nm.us
For information call: (888) 248-6866
To order free publications call: (800) 862-9310

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Albuquerque, NM

BILL MONTOYA
Alto, NM

October 2, 2012

Nathan Kirker, Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, CO 81301-5563

City of Aztec Sewer Outfall Line Replacement Project; NMDGF Doc. No. 15320

Dear Mr. Kirker:

The Department of Game and Fish (Department) has reviewed your request for information regarding the above-referenced project, and provides the following recommendations to minimize or eliminate impacts to wildlife.

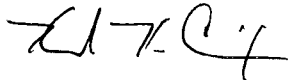
Open trenches and ditches can trap small mammals, amphibians and reptiles and can cause injury to large mammals. Periods of highest activity for many of these species include night time, summer months and wet weather.

- To minimize the amount of open trenches at any given time, keep trenching and back-filling crews close together.
- Trench during the cooler months (October – March). However, there may be exceptions (e.g., critical wintering areas) which need to be assessed on a site-specific basis.
- Avoid leaving trenches open overnight. Where trenches cannot be back-filled immediately, escape ramps should be constructed at least every 90 meters. Escape ramps can be short lateral trenches sloping to the surface or wooden planks extending to the surface. The slope should be less than 45 degrees (100%). Trenches that have been left open overnight, especially where endangered species occur, should be inspected and animals removed prior to back-filling.

With implementation of these recommendations during construction, the Department believes that this project as proposed is unlikely to adversely affect wildlife or wildlife habitats. For your convenience, we have enclosed a copy of New Mexico Wildlife of Concern for San Juan County (Biota Information System of New Mexico, BISON-M, New Mexico Dept. of Game and Fish electronic database). Species accounts, habitat associations and county species lists (use the "Database Query" option) can be accessed from the BISON-M database via the World-wide Web at <http://www.bison-m.org>. The Department recommends that you contact the U.S. Fish and Wildlife Service for current listing of federally listed species.

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Ellen Heilhecker, Habitat Biologist at (505) 222-4708 or ellen.heilhecker@state.nm.us.

Sincerely,



Kenneth K. Cunningham
Assistant Chief, Technical Guidance Section
Conservation Services Division

KKC/eh

Enc.: 1

xc: USFWS NMES Field Office
Ellen Heilhecker, NW Area Habitat Specialist, NMDGF
Donald Auer, Habitat Manager, NMDGF

NEW MEXICO WILDLIFE OF CONCERN

SAN JUAN COUNTY

For complete up-dated information on federal-listed species, including plants, see the US Fish & Wildlife Service NM Ecological Services Field Office website at <http://www.fws.gov/southwest/es/NewMexico/SBC.cfm>. For information on state-listed plants, contact the NM Energy, Minerals and Natural Resources Department, Division of Forestry, or go to <http://nmrareplants.unm.edu/>. If your project is on Bureau of Land Management, contact the local BLM Field Office for information on species of particular concern. If your project is on a National Forest, contact the Forest Supervisor's office for species information. E = Endangered; T = Threatened; s = sensitive; SOC = Species of Concern; C = Candidate; Exp = Experimental non-essential population; P = Proposed

<u>Common Name</u>	<u>Scientific Name</u>	<u>NMGF</u>	<u>US FWS</u>	<u>critical habitat</u>
Roundtail Chub	<i>Gila robusta</i>	E	C	
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	E	E	Y
Razorback Sucker	<i>Xyrauchen texanus</i>	s	E	Y
California Kingsnake	<i>Lampropeltis getula californiae</i>	s		
Brown Pelican	<i>Pelecanus occidentalis</i>	E		
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T		
Northern Goshawk	<i>Accipiter gentilis</i>	s	SOC	
Peregrine Falcon	<i>Falco peregrinus</i>	T	SOC	
Mountain Plover	<i>Charadrius montanus</i>	s	SOC	
Least Tern	<i>Sterna antillarum</i>	E	E	
Black Tern	<i>Chlidonias niger surinamensis</i>		SOC	
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	s	C	
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	s	T	Y
Burrowing Owl	<i>Athene cucularia</i>		SOC	
Black Swift	<i>Cypseloides niger</i>	s		
Broad-billed Hummingbird	<i>Cynanthus latirostris</i>	T		
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E	E	Y
Loggerhead Shrike	<i>Lanius ludovicianus</i>	s		
Gray Vireo	<i>Vireo vicinior</i>	T		
Baird's Sparrow	<i>Ammodramus bairdii</i>	T	SOC	
Sprague's Pipit	<i>Anthus spragueii</i>		C	
Western Small-footed Myotis Bat	<i>Myotis ciliolabrum melanorhinus</i>	s		
Yuma Myotis Bat	<i>Myotis yumanensis yumanensis</i>	s		
Little Brown Myotis Bat	<i>Myotis lucifugus carissima</i>	s		
Long-legged Myotis Bat	<i>Myotis volans interior</i>	s		
Fringed Myotis Bat	<i>Myotis thysanodes thysanodes</i>	s		
Long-eared Myotis Bat	<i>Myotis evotis evotis</i>	s		
Spotted Bat	<i>Euderma maculatum</i>	T		
Pale Townsend's Big-eared Bat	<i>Corynorhinus townsendii pallescens</i>	s	SOC	
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	s		
Yellow-bellied Marmot	<i>Marmota flaviventris</i>	s		
Gunnison's Prairie Dog (prairie)	<i>Cynomys gunnisoni</i>	s		
Red Fox	<i>Vulpes vulpes</i>	s		
Black-footed Ferret	<i>Mustela nigripes</i>		E	
Western Spotted Skunk	<i>Spilogale gracilis</i>	s		

September 25, 2012


Rare and Endangered Plants Specialist
New Mexico Energy, Minerals, and Natural Resources Department
Forestry Division
1220 S. St. Francis Drive
Santa Fe, NM 87505-1948

RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

The review process requires coordination with pertinent agencies and interested parties. Your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by October 26, 2012. If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. You may FAX the form to 970-259-0050.

To provide verbal comments or for more information, please feel free to call me.



Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☒ has no comments.

Signature: 

Date: 10-10-12

Name: Daniela Roth

Title: Botany Program Coordinator



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
1970 East 3rd Avenue, Suite 109
Durango, Colorado 81301

October 4, 2012

REPLY TO
ATTENTION OF:

Regulatory Division

SUBJECT: Action No. SPA-2012-00438-DUR, City of Aztec Sewer Line, San Juan County,
New Mexico

Mr. Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563

Dear Mr. Kirker:

The U.S. Army Corps of Engineers (Corps) is in receipt of your letter dated October 3, 2012 requesting a jurisdictional determination for a new sewer line in the City of Aztec, San Juan County, New Mexico. We have assigned Action No. SPA-2012-00438-DUR to this activity. To avoid delay, please include this number in all future correspondence concerning this project.

We have reviewed this request in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 (RHA). Under Section 404, the Corps regulates the discharge of dredged and fill material into waters of the United States, including wetlands. The Corps responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the United States. Based on your description of existing on-site conditions, other information available to us, and current regulations and policy, we have determined that there are no waters of the United States or navigable waters of the United States affected by the proposed project. It is our understanding that any waters of the United State will be avoided by directional boring and will not be affected by any construction activities. However, it is incumbent upon you to remain informed of any changes in the Corps Regulatory Program regulations and policy as they relate to your project.

The Corps based this decision on a preliminary jurisdictional determination (JD) that there appear to be no waters of the United States affected by the project. Preliminary JDs are advisory

in nature and may not be appealed. An approved JD is an official Corps determination that "waters of the U.S." and/or "navigable waters of the U.S." are either present or absent on a particular site. An approved JD precisely identifies the limits of those waters on the project site determined to be jurisdictional under the CWA or RHA. If you wish, you may request that the USACE reevaluate this case and issue an approved JD. If you request an approved JD, you may not begin work until the approved JD, which may require coordination with the Environmental Protection Agency, is completed. Please contact me if you wish to request an approved JD for this case.

If you have any questions concerning our regulatory program, please contact me at 970-259-1947 or by e-mail at Christopher.R.Wrbas@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

A handwritten signature in black ink, appearing to be 'CW' or 'Chris Wrbas', written in a cursive style.

Chris Wrbas
Project Manager
Durango Colorado Field Office

From: Kerrianne Zdimal
Sent: Thursday, November 08, 2012 9:28 PM
To: Nathan Kirker
Subject: follow up - aztec sewer

Nate,

I touched base with the U.S. Army Corps of Engineers' project manager today.

We will need to meet him in the field to verify the wetland delineation before winter sets in – otherwise this may delay verification of wetlands/Waters of the US boundaries until more favorable growing season conditions occur in the spring.

He indicated that the project could possibly be constructed under a NWP 3 for maintenance instead of NWP 12 (utility line) since the line is already in place – either way it is eligible for authorization under NWP. He was open to the idea of getting a “worst case scenario” authorization and submitting an as-built denoting all areas of temporary impacts to waters of the US after the project is constructed (within 30 days post-construction).

He requested with the NWP request submittal that we include a set of plan details – requested digital and hard copy submittal. He will be out of the office for the week of Thanksgiving and asked that we provide the NWP request on or before November 14 if possible – that way he can review the request on the 15th in prep for a site visit the week after Thanksgiving/first week of December.

USACE processing of a NWP is typically 45 days and permits are valid for 2 years --- within this timeframe the USACE will need to consult with the following agencies if concurrence has not occurred via other means (i.e. EA review) – USFWS for compliance with ESA, SHPO for compliance with NHPA, and NMED for CWA Section 401. My experience is that if we can show SHPO concurrence via another means, the NWP is processed much more quickly. 401 certification is usually issued within the 45 day timeframe; however, it may take longer depending upon NMED workload.

Mitigation for the temporary impacts to wetlands/Waters of the US will be in the form of restoration – let me know if the City prefers another option for mitigation.

Thanks,
kz

Kerrianne Zdimal, PWS
Senior Regulatory Specialist



ENVIRONMENTAL CONSULTANTS
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(f) 970-259-0050
www.sme-env.com

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679 East 2nd Avenue, Unit E2
Durango, CO 81301
(p) 970.259.9595 · (f) 970.259.0050
www.sme-env.com

Transmittal Sheet

To: Mr. Christopher Wrbas
U.S. Army Corps of Engineers
Albuquerque District, Durango Regulatory Field Office
1970 East 3rd Avenue, Suite 109
Durango, Colorado 81301-5025
Phone: (970) 259-1947

From: Ms. Kerrienne Zdimal **Date:** December 13, 2012

Re: Aztec Sewer Outfall Line **Pages:** N/A
NWP 12 Request, SPA #2011-00266

CC: Mr. Mike Huber, P.E. City of Aztec (1 copy w/encls. via email)

Notes/Comments:

Mr. Wrbas:

Please find enclosed a request for Nationwide Permit 12 from the U.S. Army Corps of Engineers and a CD containing the project digital mapping information.

Please feel free to contact us if you have any questions or require additional information.

Regards,

SME ENVIRONMENTAL, INC.

The block contains a handwritten signature in blue ink, which appears to read 'K. Zdimal'. To the right of the signature is a circular professional seal. The seal has a decorative border and contains the text 'PWS' in the center, 'Kerrienne L. Zdimal' below it, and '1954' at the bottom. The words 'PROFESSIONAL WETLAND SCIENTIST' are written around the inner circle of the seal.

Kerrienne Zdimal
Senior Regulatory Specialist

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DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
1970 EAST 3RD AVENUE, SUITE 109
DURANGO, COLORADO 81301

July 30, 2014

REPLY TO
ATTENTION OF:

Regulatory Division (CESPA-NM-RD-DR)

SUBJECT: Action No. **SPA-2012-00521**; Jurisdictional Delineation Verification, City of Aztec
Sewer Line, San Juan County, New Mexico

City of Aztec
ATTN: William L. Watson, P.E.
303 S. Ash Street
Aztec, New Mexico 87410

Dear Mr. Watson:

We are responding to your November 3, 2014 request for an approved jurisdictional determination for the SPA-2012-00521 project. The project site is located along the Animas River, Latitude 36°49'9.957, Longitude -108°1'18.523 to Latitude 36°49'36.373, Longitude -108°0'10.493, Aztec, San Juan County, New Mexico.

Based on available information, **we concur with the estimate of waters of the United States, as depicted on the enclosed Outfall Sewer Line Improvement Project delineation drawing prepared by SME Environmental, Inc.** There is a total of 0.69 acres of adjacent wetlands and 0.60 acres of open waters along the Animas River. These waters are regulated under Section 404 of the Clean Water Act.

The Corps based this decision on an approved jurisdictional determination (JD) that there are waters of the United States on the project site. The basis for this approved JD is Relatively Permanent Waters [and their abutting or adjacent wetlands] that flow directly or indirectly into Traditional Navigable Waters. The JD form is available at <http://www.spa.usace.army.mil/Missions/RegulatoryProgramandPermits/JD.aspx>. This approved JD is valid for a period of no more than five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

You may accept or appeal this approved JD or provide new information in accordance with the Notification of Administration Appeal Options and Process and Request For Appeal (NAAOP-RFA). This form is available at http://www.spa.usace.army.mil/reg/Administrative%20Appeals/appeals_process.asp. If you elect to appeal this approved JD, you must complete Section II (Request For Appeal or Objections to an Initial Proffered Permit) of the form and return it to the Army Engineer Division, South Pacific, CESP-D-PDS-O, Attn: Tom Cavanaugh, Administrative Appeal Review

Officer, 1455 Market Street, Room 1760, San Francisco, CA 94103-1399 within 60 days of the date of this notice. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

If you have any questions concerning our regulatory program, please contact me at 970-259-1947 or by e-mail Christopher.r.wrbas. At your convenience, please complete a Customer Service Survey on-line available at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,



Chris Wrbas
Project Manager

CF:
SME Environmental, Inc., ATTN: Sean Moore, Principal, 679 East 2nd Ave., Unit E2, Durango,
CO 81301

From: [Kerrienne Zdimal](#)
To: dianna@sme-env.com
Subject: FW: DA# SPA-2012-00521 City of Aztec Sewer Line Improvement Project Request for Approved Jurisdictional Determination
Date: Thursday, December 17, 2015 1:46:17 PM
Attachments: [2015 Aztec Sewer WD Addendum finalcomplete.pdf](#)

Forwarding in case you were not blind copied --- this is an agency submittal (USACE) to request JD for an additional study area for SME #120027. Let me know if any questions. Thanks -kz

Kerrienne Zdimal, PWS
Senior Regulatory Specialist

SME Environmental Consultants
(970) 259-9595, (970) 259-0500 fax

From: Julia Hanson [mailto:jhanson@sme-env.com]
Sent: Thursday, December 17, 2015 10:23 AM
To: Wrbas, Christopher R SPA
Cc: Nathan Kirker; Sean Moore; Kerrienne Zdimal
Subject: DA# SPA-2012-00521 City of Aztec Sewer Line Improvement Project Request for Approved Jurisdictional Determination

Hi Chris

Please see the attached (DA# SPA-2012-00521) Additional Study Area Aquatic Resources Delineation for the 2015 revisions of the City of Aztec Sewer Line Improvement Project alignment. SME, on behalf of the City of Aztec, would like to request an Approved Jurisdictional Determination for the Additional Study Area associated with the 2015 revised alignment of the Sewer Line Improvement Project. Based on our discussion last week, the attached Aquatic Resources Delineation of the 2015 additional study area includes the amount of Aquatic Resources that were approved in 2014 and the additional aquatic resources delineated in 2015. Please let me know if you have any questions. Thank you,

Julia Hanson
Biologist/Botanist


ENVIRONMENTAL CONSULTANTS
679 E 2nd Avenue/ Unit E2
Durango, CO 81301
(p) 970-403-0581
(f) 970-259-0050
jhanson@sme-env.com

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United States Department of Agriculture



Natural Resources Conservation Service
6200 Jefferson NE, Room 305
Albuquerque, NM 87109
Phone: (505) 761-4400 Fax: (505) 761-4462
Website: www.nm.nrcs.usda.gov

October 9, 2012

Mr. Nathan Kirker
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301

Dear Mr. Kirker:

Thank you for providing the Natural Resources Conservation Service (NRCS) the opportunity to review the proposed construction of the City of Aztec Sewer Outfall Line Replacement Project, San Juan County, New Mexico.

The Farmland Protection Policy Act (FPPA) authorizes the NRCS to provide review of proposed projects that have the potential to irreversibly convert farmlands to non-farmland uses as the result of programs funded by the federal government. In review of the information provided on the project, it is determined that the entire project is located in an urban or development area in an existing easement. The FPPA rules define farmland conversion to be "to the extent that it irreversibly converts farmland to other purposes"; this project is not expected to have that effect. With this acknowledged, the proposed project will not cause Prime or Unique Farmlands to be converted to non-agricultural uses, and is not subject to the Act.

If you have any questions concerning soils information, please contact Clarence Chavez, Soil Data Quality Specialist, at (505) 761-4435 or email at clarence.chavez@nm.usda.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "J. X. Montoya", is written over a printed name and title.

J. XAVIER MONTOYA
State Conservationist

cc:

Clarence Chavez, Soil Data Quality Scientist, NRCS, Albuquerque, NM

Helping People Help the Land

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NM ENVIRONMENT DEPT
RECEIVED

RECEIVED

September 25, 2012

OCT 01 2012

Environmental Impact Review Coordinator
New Mexico Environment Department
Office of General Council
P.O. Box 5469
Santa Fe, NM 87502-5469

OFFICE OF THE SECRETARY
NM Environment Department
Office of the Secretary

#3788

RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

The review process requires coordination with pertinent agencies and interested parties. Your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by October 26, 2012. If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. You may FAX the form to 970-259-0050.

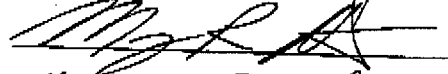
To provide verbal comments or for more information, please feel free to call me.



Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☒ has no comments.

Signature:  Date: 31 Oct 12
Name: Morgan R. Nelson Title: Policy Anal. Analyst

From: Kerrienne Zdimal
Sent: Tuesday, November 20, 2012 2:27 PM
To: Nathan Kirker
Subject: aztec sewer

Neal Schaffer gave me a call re: water quality certification – there are a few things he is requesting we clarify. Let me know when you have time to discuss. Thanks -kz

Kerrienne Zdimal, PWS
Senior Regulatory Specialist



ENVIRONMENTAL CONSULTANTS
679 East 2nd Avenue Unit E2
Durango, Colorado 81301
(o) 970-259-9595 ext. 105
(c) 970-769-2252
(f) 970-259-0050
www.sme-env.com

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From: Nathan Kirker
Sent: Tuesday, January 22, 2013 6:34 PM
To: Nathan Kirker
Subject: FW: Aztec Sewer Project

From: Schaeffer, Neal, NMENV [mailto:neal.schaeffer@state.nm.us]
Sent: Monday, January 07, 2013 9:34 AM
To: Mike Huber
Cc: Kerrienne Zdimal; Wrbas, Christopher R SPA; Franklin, Abraham, NMENV; Hogan, James, NMENV; Bishop, David, NMENV
Subject: Aztec Sewer Project

Mike,

This email is to notify you that I cannot act on your recent 404 application, as prepared by SME, for the Aztec sewer outfall project because these construction plans are not final. I understand that you have not received funding for this project and that the construction plans (being developed by Huitt-Zollars) haven't even been submitted to NMED's Construction Grants program for their review.

The NMED Surface Water Quality Bureau doesn't have the resources to review provisional plans. Our Construction Grants Program prefers to pursue permitting after plans and funding decisions are final. This is to avoid unnecessary resistance to necessary plan changes and to allow better cost estimates, especially for costs associated with permit compliance.

Please withdraw this 404 application until the plans are final and you have secured funding. I'm happy to provide timely Section 401 review at that time.

Please let me know if you have any questions about this.

Thanks.

--

Neal Schaeffer
Environmental Scientist/Specialist
NMED-SWQB
505-476-3017



SUSANA MARTINEZ
GOVERNOR

JOHN A. SANCHEZ
LIEUTENANT GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Air Quality Bureau
1301 Siler Road, Building B
Santa Fe, NM 87507-3113
Telephone (505) 476-4300
Fax (505) 476-4375

www.nmenv.state.nm.us/aqb



DAVE MARTIN
CABINET SECRETARY

BUTCH TONGATE
DEPUTY SECRETARY

December 28, 2012

Mr. Nathan Kirker
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563

RE: City of Aztec Sewer Outfall Line Replacement Project (NMED ER 3788)

Dear Mr. Kirker:

The proposed project is located in San Juan County. San Juan County is currently considered to be in attainment with all National Ambient Air Quality Standards. We have not prepared population projections for Aztec or for San Juan County.

The project as proposed should have no long-term significant impacts to ambient air quality. However, dust control measures should be taken to minimize the release of particulates during construction of the proposed project. Long-term dust control can be achieved by paving or revegetating disturbed areas following construction.

Please let me know if I can provide any further information.

Sincerely,

Rita Bates
Planning Section Chief

Post-it® Fax Note 7671

Date 10/23/12 # of pages 1

To	Nathan Kirker	From	Genevieve Head
Co./Dept	SME	Co.	NMDOT
Phone #	970-259-9595 ^X 113	Phone #	505-827-5356
Fax #	970-259-0050	Fax #	505-827-3243



NEW MEXICO DEPARTMENT OF
TRANSPORTATION
 MOBILITY FOR EVERYONE

ENVIRONMENTAL DESIGN BUREAU

To: Nathan Kirker, SME Environmental Inc.

From: Genevieve Head

Project: City of Aztec Sewer Outfall Line Replacement Project
 NM 516 (N. Aztec Boulevard), milepost 13.2, bridges 6219 and 6220
 24-inch sewer line crossing under bridges

Date: October 23, 2012

Dear Mr. Kirker,

Thank you for your request for comments on the Sewer Outfall Line Replacement Project proposed by the City of Aztec, San Juan County, NM. The request and project summary were received in this office on October 2, 2012.

Based on your project area maps the proposed sewer replacement will require New Mexico Department of Transportation (NMDOT) permitting where the project crosses under NM 516/North Aztec Boulevard. If this is the case, environmental and cultural resource clearance for the permits will need to come from this office. We will need more information in order to provide clearance for the project in NMDOT right of way.

NM 516 at this point is carried over the Animas River by NMDOT bridge 6219 (southbound lanes) and NMDOT bridge 6220 (northbound lanes). Bridges 6219 and 6220 were constructed in 1960 and became potentially eligible for the National Register of Historic Places and the State Register of Cultural Properties in 2010 [please note that these are not the thru-truss structure known as the Animas River or Chaco Street Bridge]. NMDOT is not requiring an evaluation of the eligibility of these structures, but is requiring a description of how the project will avoid direct and indirect effects to them. Please also provide a copy of the cultural resources report of the Class III cultural resource survey for the project for our review.

The project area maps also show that within the NMDOT right of way the project will be in the floodplain of the Animas River, and may be in wetlands along the river. Please provide a copy of the biological report for our review, including information regarding wetland delineation (if any) and information regarding compliance with Sections 401 and 404 of the Clean Water Act.

Once NMDOT has received this information we will complete the review of your project.

If you have any questions, please contact me at 505-827-5356, genevieve.head@state.nm.us

Thank you.



January 25, 2013

Ms. Genevieve Head
NMDOT-Environmental Design Division
1129 Cerrillos Road/P.O. Box 1149
Santa Fe, New Mexico 87504
Phone: (505) 827-5356; Fax:(505) 827-0417
Email: genevieve.head@state.nm.us

***RE: City of Aztec Sewer Outfall Line Replacement Project
NM 516 (N. Aztec Blvd), Milepost 13.2, Bridges 6219 and 6220
24-inch sewer line crossing under bridges
Additional Info per October 23, 2012 Request***

Dear Ms. Head:

By letter dated October 23, 2012, additional information in regard to environmental documentation was requested by NMDOT for the above-referenced project.

Biological Resources

SME Environmental, Inc. (SME) conducted a site investigation and prepared a biological assessment report as part of the Environmental Information Document (EID) for the New Mexico Environment Department (NMED) Construction Programs Bureau State Environmental Review Process. Please find enclosed a copy of this report for your review and records (Attachment A).

Cultural Resources

A Class III cultural resource inventory has been completed for the proposed project (Attachment B). The inventory was conducted by El Morro CRM under the provision and standards of 4.10.15 New Mexico Administrative Code: Cultural Resources, Cultural Properties and Historic Preservation, Standards for Survey and Inventory. Standards included a records search and a pedestrian survey of the project area and cultural buffer zone on either side of the ROW.

- The inventory of the proposed Aztec Sewer Outfall Line Project yielded a total of two previously recorded sites, LA 68214 and LA 122905. Site LA 68214, an in-use segment of the Elledge Mill Ditch, was recommended to be eligible to the National Register of Historic Places (NRHP) under Criteria A and C. The State Historic Preservation Office (SHPO) determined that site LA 122905, the Chaco Street Bridge, was eligible for listing

in the NRHP under Criteria A and C. A single previously recorded site, LA 15235, was not relocated in the current survey area. Site LA 15235 was originally recorded as a Pueblo III period roomblock. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

- The proposed undertaking crosses NMDOT right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and State Register of Cultural Properties (SRCP) listing; however, the NMDOT Environmental Design Division did not require an evaluation of eligibility during the project archaeological investigation.
- The proposed undertaking should have no adverse effect on NMDOT bridges. All construction activities will take place under the NMDOT bridges and at a sufficient distance from its surface features to eliminate the risk of any direct effects. The portion of the outfall line constructed in the proximity of the NMDOT bridges will be bored underground and placed in a steel carrier pipe to ensure that there would be no indirect effects to the foundational support of the bridges. Please see the memorandum dated January 24, 2013 from Huitt-Zollars, Inc. (Attachment D).

The proposed undertaking should have no adverse effect on historic properties with recommended protection measures and the State Historic Preservation Office (SHPO) concurred that qualified archaeological construction monitors should be onsite during construction activities within 100 feet of any previously recorded sites by stamp dated November 21, 2012. SHPO concurrence is contingent upon submittal of an archaeological monitoring plan for review and submittal prior to commencement of work. Preparation of an archaeological monitoring plan is in process by Woods Canyon Archaeological Consultants. Please find attached a copy of the referenced SHPO concurrence within Attachment C.

Wetlands and Other Waters of the U.S.

A wetland delineation report was provided to the U.S. Army Corps of Engineers (USACE) with request for Nationwide Permit 12 for Utility Line Crossings (Clean Water Act Section 404) by email dated November 15, 2012 and hard copy provided by mail (Attachment E).

- A site visit to verify the boundaries of wetlands and other Waters of the U.S. was conducted on December 5, 2012. SME, the City of Aztec (Mr. Mike Huber) and the USACE project manager (Mr. Chris Wrbas) were in attendance. The request for Nationwide Permit 12 is pending.
- As part of the Nationwide Permit 12 process, the USACE provided the NMED Surface Water Quality Bureau (Mr. Neal Schaffer) with a copy of the permit request. Clean Water Act Section 401 Water Quality Certification is pending.

Please contact us at (970) 259-9595 if you require additional information or further clarification. Thank you in advance for your attention to this matter. We appreciate your time and continued effort to keep this project advancing in its development.

Sincerely,

SME ENVIRONMENTAL, INC.



Kerrienne Zdimal, PWS
Senior Regulatory Specialist

cc: Mr. Mike Huber, City of Aztec - 1 Copy (w/encls) via email

Encls.

S:\Projects\120027 Aztec Sewer 2012\NMDOT_Response to Addl Info Request_Jan 2013_final.doc



New Mexico Department of Transportation

INTRA-DEPARTMENTAL CORRESPONDENCE

TO: John Whatley
NMDOT District 5

Date: October 11, 2013

SUBJECT: San Juan County
NM 516, crossing, milepost 13.2, Bridges 6219 and 6220
24-inch sewer line crossing under bridges
City of Aztec Sewer Outfall Line Replacement Project

FROM: Genevieve Head
Environmental Development Section

REVISION to memo sent October 4, 2013 augmenting nesting bird commitment

The NMDOT Environmental Development Section has reviewed the Final Environmental Information Document and the associated cultural resource investigation titled *Cultural Resource Inventory for the City of Aztec Sewer Outfall Line in San Juan County, New Mexico* (NMCRIS #125442) prepared by El Morro CRM, LLC, and the biological assessment titled *Biological Assessment, City of Aztec, New Mexico, Aztec Sewer Outfall Line Project* prepared by SME Environmental. All were produced for the City of Aztec in support of replacing the Aztec Sewer Outfall Line from Aztec Boulevard west to the Aztec Wastewater Treatment Plant off of South Oliver Drive.

The project will require an NMDOT right of way access permit to cross under NM 516 where the highway carries over the river on Bridges 6219 and 6220. These bridges were built in 1960 and are potentially eligible for listing on the National Register of Historic Places (NRHP) and the New Mexico State Register of Cultural Properties (SRCP). As presented, the project will bore under and past Bridges 6219 and 6220 in order to avoid the bridge infrastructure.

In addition to the documents cited above, the NMDOT Environmental Section has also reviewed a monitoring plan for the project, prepared by Woods Canyon Archaeological Consultants, Inc. The New Mexico Historic Preservation Division concurred with a finding of no adverse effect, with monitoring, November 21, 2012 (HPD Log 95740) and approved the monitoring plan September 12, 2013 (HPD Log 97649).

The project Environmental Information Document identified the following actions the City of Aztec will take to minimize the impact of the project:

- Construct outside the migratory bird nesting season between April 15 and August 15. If this is not possible, have preconstruction nesting bird surveys conducted no more than 2 weeks prior to beginning of construction;
- Minimize disturbance to vegetation;
- No fueling, lubricating, or major repairs will be done to construction equipment within 100 feet of open water sources or wetlands;

- Use Best Management Practices as specified in the Stormwater Pollution Prevention Plan to minimize runoff before and after construction;
- Follow New Mexico Department of Game and Fish trenching guidelines to minimize impacts to small animals;
- A qualified, permitted archaeologist will monitor all project activity in the easternmost 1,000 feet of the project, including where it crosses under NM 516, including the digging of bore pits associated with this activity.

The NMDOT Environmental Development Section has no concerns with this project and this memo constitutes environmental clearance for the project to proceed within NMDOT highway right of way.

cc: Nathan Kirker, SME Environmental
Carole Graham, Woods Canyon Archaeological Consultants



Environmental Development Section

TO: Arthur J. Montoya, Huitt-Zollars, Inc.

DATE: June 24, 2014

SUBJECT: Environmental Clearance for installation of 18" HDPE DR21 SAS line; NM 516 ROW at intersection with Animas River in San Juan County, New Mexico

FROM: Gary Funkhouser

The NMDOT Environmental Development Section is not requiring full cultural resource or environmental surveys. However, because there are trees located within the APE for the proposed project, if construction is undertaken between March 15 and September 15 (migratory bird season), the NMDOT is requiring that a qualified biologist conduct a migratory bird survey be conducted no more than two weeks prior to any project activities.

A brief letter report of the migratory survey will be sufficient – and I will approve the project based on a verbal or email confirmation from the biologist that there are no migratory bird concerns associated with the project.

If you decide to undertake the bird survey, please have the biologist contact me prior to fieldwork so that we can agree on a procedure for immediately granting environmental clearance once the survey is completed if no evidence of nesting is identified.

If you have any questions, I can be contacted at: (505) 827-5692 or gary.funkhouser@state.nm.us

Susana Martinez
Governor

Tom Church
Cabinet Secretary

Commissioners

Pete K. Rahn
Chairman
District 3

Ronald Schmeits
Vice Chairman
District 4

Dr. Kenneth White
Secretary
District 1

Butch Mathews
Commissioner
District 5

Jackson Gibson
Commissioner
District 6

**Migratory bird survey required no
more than 2 weeks prior to start of
construction.**

CULTURAL RESOURCE INVENTORY
NOT REQUIRED
NMDOT, ENVIRONMENTAL SECTION



New Mexico DEPARTMENT OF
TRANSPORTATION
MOBILITY FOR EVERYONE

REVIEWED

By Gary Funkhouser at 9:09 am, Jun 24, 2014

Environmental Clearance for Undertakings within

ENVIRONMENTAL SURVEY

NOT REQUIRED

In order to receive environmental clearance for permitted project
following information will need to be submitted to the NMDOT Er

NMDOT, ENVIRONMENTAL SECTION

Submittals (usually) are reviewed Tuesday of each week. Subm

not be reviewed until the following Tuesday. Emergency requests are handled on a case-by-
case basis.

1. **Purpose and Nature** of undertaking. Describe the undertaking along with width, length and depth of ground disturbance. Include the methods and machinery to be used.
Installation of 7,349 LF of 18" HDPE DR21 SAS line. A small portion will be in NMDot ROW installed by trenching method at 4 ft deep using excavator and loader
2. **Is your project resulting from a NMDOT project?** If so, provide the control and/or project number.
No
3. **Funding Source.** Is the funding private, state or federal? If state and/or federal, list agency(s).
Funding is from the State of New Mexico
4. **Land status.** Is the project on the right-of-way owned by BLM, Forest Service, Tribal land or State Trust land? (NMDOT does not own all highway rights-of-way!)
NA
5. **Permitting agencies.** List other permitting agencies involved besides NMDOT.
NMED-CPB.
6. **County.** List the county or counties in which the project is located.
San Juan County
7. **Highway number.** Indicate the highway, the project will cross or parallel.
NM 516
8. **BOP and EOP.** Provide the milepost locations for the beginning of the project area (BOP) and the end of the project area (EOP). If highway crossing only, list the milepost location, indicate BOP and EOP on quadrangle maps as well.
Project location is at the intersection of NM 516 and the Animas River at approximately mile marker 160.

9. **Side(s)** of the road. Indicate of which side of the road the project will be located using cardinal directions (north, south, east, west). List all project crossings of the highway by milepost.

Project will be all sides under the NM 516 bridge at the Animas river

10. **Length** of the project. Indicate the length of the project within NMDOT right-of-way in terms of feet and/or miles.

Length of project is approximately 150 LF

11. **Provide the legal description** of the project area: Township, Range, and Section(s).

T.30N, R.11W, Section 8

12. **USGS 1:24,000(7.5') Quadrangle map.** List the name(s) of the USGS quadrangle map(s) on which the project is located.

Flora Vista, NM 2013

13. Include the appropriate portion of the **USGS 1:24,000 (7.5') Quadrangle map(s)** with the project area indicated by an **X** if a crossing, or **BOP** and **EOP** if linear. **Do not reduce or enlarge.** Quad map images can be printed at no charge from the website <http://terraserver.usa.com/>.

14. **Do not** send photos (including aerial photos or photo maps) unless they are scanned or sent via US Mail. Faxed photos come out entirely black.

15. Include your name, company (if applicable), phone #, fax # and email address (if you use one).

16. Submit your requests by email, by fax **OR** by mail. Send in one format only- **DO NOT** send in multiple formats.

Send clearance requests to:

Genevieve Head, NMDOT-Environmental Design Division

1129 Cerrillos Road/P.O. Box 1149

Santa Fe, NM 87504

(for FedEx or UPS the ZIP code is 87501)

Phone: (505) 827-5356; **Fax:** (505) 827-0417; **Email:** genevieve.head@state.nm.us

USGS
United States Geological Survey

Торго

REVIEWED



CULTURAL RESOURCE INVENTORY
NOT REQUIRED
NMDOT, ENVIRONMENTAL SECTION

REVIEWED
By Gary Funkhouser at 9:36 am, Jun 24, 2014

ENVIRONMENTAL SURVEY
NOT REQUIRED
NMDOT, ENVIRONMENTAL SECTION

FLORA VISTA, NM
2013

FLORA VISTA, NM
2012



FEMA

FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION VI
MITIGATION DIVISION

NOTICE REVIEW/ENVIRONMENTAL CONSULTATION

☐ We have no comments to offer. ☒ We offer the following comments:

WE WOULD REQUEST THAT THE LOCAL FLOODPLAIN ADMINISTRATOR BE CONTACTED FOR THE REVIEW AND POSSIBLE PERMIT REQUIREMENTS FOR THIS PROJECT. IF FEDERALLY FUNDED, WE WOULD REQUEST PROJECT TO BE IN COMPLIANCE WITH EO11988 & EO 11990.

Charles Fairweather
Mayor
City of Hominy
PO Box 219
Hominy, OK 74035
cityhmny@cccexpress.com
918-885-2164

REVIEWER:

Mayra G. Diaz
Floodplain Management and Insurance Branch
Mitigation Division
(940) 898-5541

DATE: October 5, 2012

RECEIVED

OCT 01 2012

CITY OF AZTEC
COMMUNITY DEVELOPMENT

September 25, 2012

Roshana Moojen, Certified Floodplain Manager
City of Aztec
Community Development Department
201 West Chaco St.
Aztec, NM 87410

RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

The review process requires coordination with pertinent agencies and interested parties. Your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by October 26, 2012. If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. You may FAX the form to 970-259-0050.

To provide verbal comments or for more information, please feel free to call me.



Nathan Kirker
Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☒ has no comments.

Signature: Roshana Moojen

Date: 10/17/2012

Name: Roshana Moojen, CFM

Title: Community Development Director

n.kirker@sme-env.com

From: Nathan Kirker
Sent: Tuesday, October 23, 2012 9:44 AM
To: Mike Huber
Subject: Elledge Mill Ditch Comments

Mike,

Just got a phone call from Dale Hunt, Board of Directors member and Ditch Rider for the Elledge Mill Ditch. Dale's main concerns were with potential disturbances to the integrity of the ditch and the timing of construction. The ditch will be shut down from approximately October 27, 2012 to April 1, 2013. Dale would prefer construction to occur during this period. Dale would prefer to see any ditch crossings to be made by boring under the ditch. Dale is concerned that soils in the area are fairly sandy and that any disturbances to the ditch, and subsequent repairs, would result in leaky/seepy spots in the ditch that would result in a loss of water, and more importantly could result in ditch wall failure. I informed Dale that the City planned to bore any ditch crossings and if that wasn't the case that the City would contact Elledge Mill Ditch prior to any crossings. I provided him with your phone number as he was interested in getting more information about the location of the work and possibly doing a site visit. If a site visit is scheduled, please let us know if the ditch company has any more comments that may be pertinent to the environmental review beyond those described above. Thanks.

Nathan Kirker
Biologist



ENVIRONMENTAL CONSULTANTS
679 East 2nd Avenue Unit E2
Durango, Colorado 81301
(o) 970-403-0583
(c) 970-946-9899
(f) 970-259-0050
www.sme-env.com

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September 25, 2012

San Juan Water Commission
7450 East Main Street - Suite B
Farmington, NM 87402

RE: City of Aztec Sewer Outfall Line Replacement Project

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). We are gathering information for an environmental review of the referenced project. The project is described in the attached project summary sheet and the location is depicted on the attached location maps.

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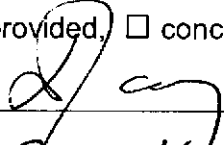
To provide verbal comments or for more information, please feel free to call me.



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Permitting Specialist
SME Environmental, Inc.
679 East 2nd Avenue, Unit E2
Durango, Colorado 81301-5563
Phone: 970-259-9595 ext. 113
Fax: 970-259-0050

ACKNOWLEDGEMENT:

As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment, and having reviewed the attached project summary and additional information, if provided, ☐ concurs with the initial determination, or, ☒ has no comments.

Signature:  Date: 10-2-12
Name: L. Randy Kirkpatrick Title: Executive Director

RECEIVED

SEP 28 2012

SAN JUAN WATER COM

City of Aztec – Sewer Outfall Line

TRIBAL COORDINATION TRACKING TABLE -- PAGE 1 OF 2

AGENCY/PARTY	PHONE NUMBER	DATE SENT	DATE REC'D	DATE FOLLOW-UP	COMMENTS
Governor Randall Vicente Pueblo of Acoma PO Box 309 Acoma, NM 87034		10.12.12			No reply to date
Chairman LeRoy N. Shingoitewa Hopi Tribal Council P.O. Box 123 Kykotsmovi, AZ 86039		10.12.12			No reply to date
Chairman Ronald Twohatchet Kiowa Business Committee Kiowa Tribe of Oklahoma P.O. Box 369 Carnegie, OK 73015		10.12.12			No reply to date
Governor Richard Luarkie Pueblo of Laguna PO Box 194 Laguna Pueblo, NM 87026		10.12.12			No reply to date
President Ben Shelly Navajo Nation P.O. Box 9000 Window Rock, AZ 86515		10.12.12			No reply to date
Governor Ron Lovato Ohkay Owingeh PO Box 1099 San Juan Pueblo, NM 87566		10.12.12			No reply to date
Chairman Jimmy R. Newton, Jr. Southern Ute Indian Tribe P.O. Box 737 Ignacio, CO 81137		10.12.12			No reply to date
Governor Ramos Romero Pueblo of Tesuque Route 42, Box 360-T Santa Fe, NM 87506		10.12.12			No reply to date

Chairman Gary Hayes Ute Mountain Ute Tribe P.O. Box 248 Towaoc, CO 81334		10.12.12			No reply to date
Governor Wilfred Shue Pueblo of Zia 135 Capitol Square Dr. Zia Pueblo, NM 87053-6013		10.12.12			No reply to date



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-2855 Fax (505) 827-2836
www.nmenv.state.nm.us



DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Governor Randall Vicente
Pueblo of Acoma
PO Box 309
Acoma, NM 87034

Dear Governor Vicente,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

The City proposes to install a 24" sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico. The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from West Chaco St. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows just north of the Elledge Mill Ditch north of the Animas River (Figure 1). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Southwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on City property as well as across easements obtained or sought from San Juan County and privately owned lands.

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects – APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

The Class II inventory of the proposed Aztec Sewer Outfall Line yielded two previously recorded sites (LA 15235 and LA 122905) and one undocumented prehistoric site (possibly associated with the nearby LA 15186) within the area surveyed. Also, one undocumented historic ditch segment (Ellidge Mill Ditch) crosses and parallels the proposed project area. A segment of the ditch has been previously documented (LA 68214); however, eligibility to the National Register of Historic Places has not been determined for the segment. A Class III inventory is currently being conducted by El Morro CRM to identify and document all cultural resources within the project area, and to determine eligibility and protection measures for cultural resources.

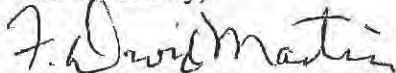
Aztec Ruins, 0.6 mile to the north, has been identified as a Navajo affiliated TCP and retains significance for modern Pueblo groups. Aztec Ruins (*Kin niteel* or Wide House) is a place sacred to the Navajo, with numerous chantway and rite associations (Van Valkenburgh 1974:141).

A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Pueblo of Acoma to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Pueblo of Acoma to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Pueblo of Acoma has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Pueblo of Acoma has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin

Cabinet Secretary

New Mexico Environment Department

Enclosure: *Project Area Maps*

____ The Pueblo of Acoma has determined that the proposed project (described above) in San Juan County, New Mexico **will not** affect any objects, sites, or locations of traditional religious importance to the Pueblo of Acoma.

____ The Pueblo of Acoma has determined that the proposed project (described above) in San Juan County, New Mexico **will** affect objects, sites, or locations of traditional religious importance to the Pueblo of Acoma. The City and NMED should undertake further consultations with the Pueblo of Acoma in order to evaluate, consider, or avoid such locations.

Randall Vicente, Governor

Date

PROJECT LOCATION:

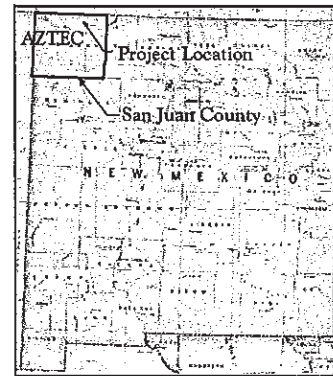
Sections 8, 9, and 17
Township 30 North, Range 11 West
New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

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DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Chairman LeRoy N. Shingoitewa
Hopi Tribal Council
P.O. Box 123
Kykotsmovi, AZ 86039

Dear Chairman Shingoitewa,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

The City proposes to install a 24" sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico. The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from West Chaco St. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows just north of the Elledge Mill Ditch north of the Animas River (Figure 1). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. The legal description of the proposed project's location is as follows:

South $\frac{1}{2}$ of Section 8 and Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on City property as well as across easements obtained or sought from San Juan County and privately owned lands.

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects –APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

The Class II inventory of the proposed Aztec Sewer Outfall Line yielded two previously recorded sites (LA 15235 and LA 122905) and one undocumented prehistoric site (possibly associated with the nearby LA 15186) within the area surveyed. Also, one undocumented historic ditch segment (Ellidge Mill Ditch) crosses and parallels the proposed project area. A segment of the ditch has been previously documented (LA 68214); however, eligibility to the National Register of Historic Places has not been determined for the segment. A Class III inventory is currently being conducted by El Morro CRM to identify and document all cultural resources within the project area, and to determine eligibility and protection measures for cultural resources.

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A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Hopi Tribe to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Hopi Tribe to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Hopi Tribe has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Hopi Tribe has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin
Cabinet Secretary
New Mexico Environment Department

Enclosure: *Project Area Maps*

____ The Hopi Tribe has determined that the proposed project (described above) in San Juan County, New Mexico *will not* affect any objects, sites, or locations of traditional religious importance to the Hopi Tribe.

____ The Hopi Tribe has determined that the proposed project (described above) in San Juan County, New Mexico *will* affect objects, sites, or locations of traditional religious importance to the Hopi Tribe. The City and NMED should undertake further consultations with the Hopi Tribe in order to evaluate, consider, or avoid such locations.

LeRoy N. Shingoitewa, Chairman

Date

PROJECT LOCATION:

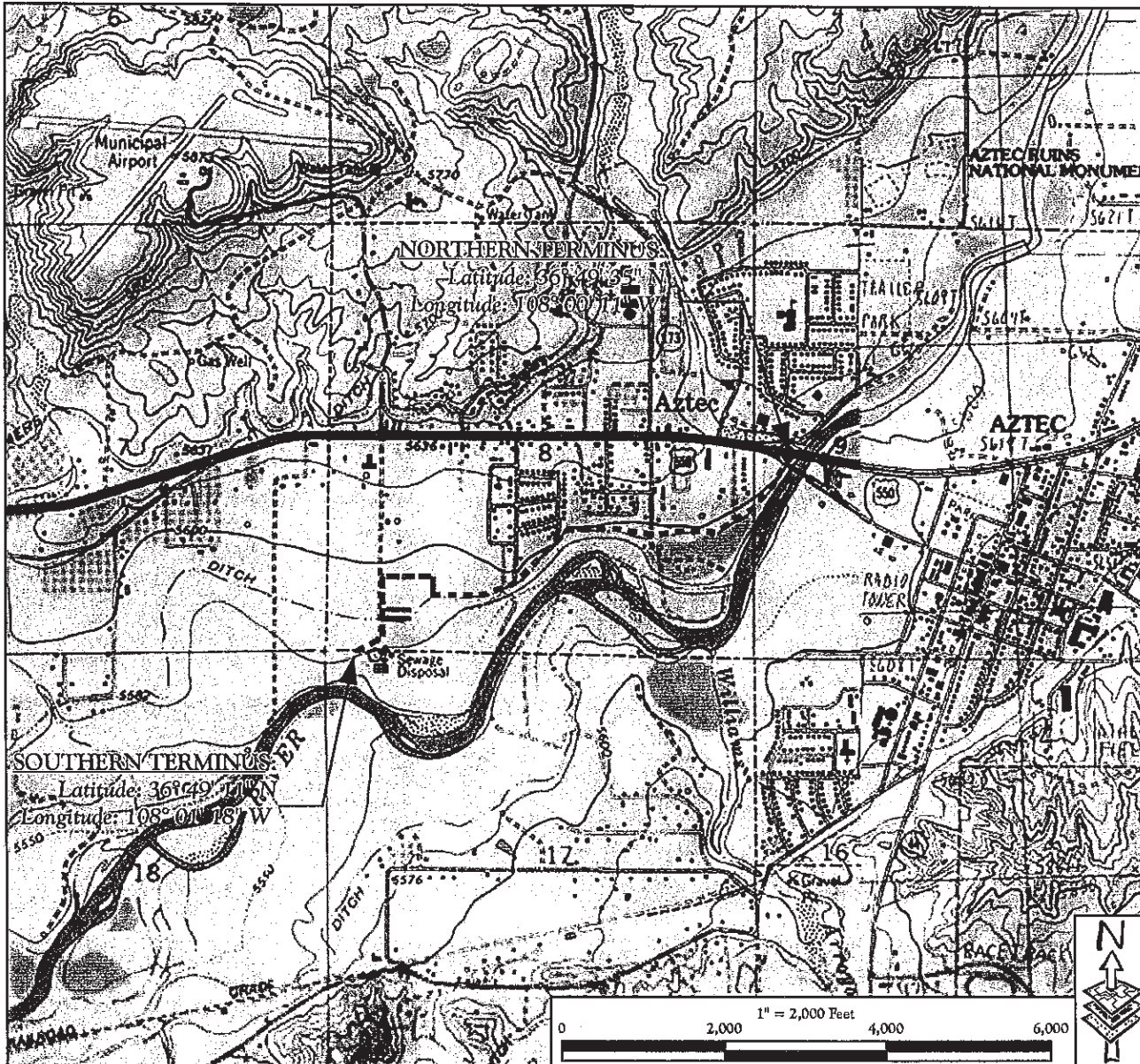
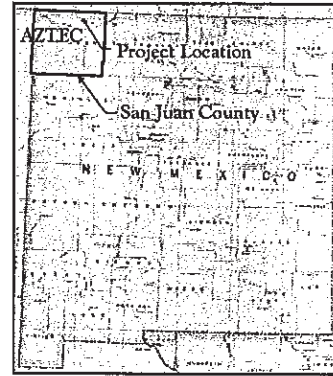
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San Juan County, New Mexico.

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LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (870) 259-9595

PROJECT LOCATION MAP
AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
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DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Chairman Ronald Twohatchet
Kiowa Business Committee
Kiowa Tribe of Oklahoma
P.O. Box 369
Carnegie, OK 73015

Dear Chairman Twohatchet,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

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Datum: NAD 83

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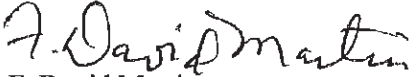
Aztec Ruins, 0.6 mile to the north, has been identified as a Navajo affiliated TCP and retains significance for modern Pueblo groups. Aztec Ruins (*Kin niteel* or Wide House) is a place sacred to the Navajo, with numerous chantway and rite associations (Van Valkenburgh 1974:141).

A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Kiowa Tribe of Oklahoma to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Kiowa Tribe of Oklahoma to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Kiowa Tribe of Oklahoma has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Kiowa Tribe of Oklahoma has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin

Cabinet Secretary

New Mexico Environment Department

Enclosure: *Project Area Maps*

____ The Kiowa Tribe of Oklahoma has determined that the proposed project (described above) in San Juan County, New Mexico **will not** affect any objects, sites, or locations of traditional religious importance to the Kiowa Tribe of Oklahoma.

____ The Kiowa Tribe of Oklahoma has determined that the proposed project (described above) in San Juan County, New Mexico **will** affect objects, sites, or locations of traditional religious importance to the Kiowa Tribe of Oklahoma. The City and NMED should undertake further consultations with the Kiowa Tribe of Oklahoma in order to evaluate, consider, or avoid such locations.

Ronald Twohatchet, Chairman

Date

PROJECT LOCATION:

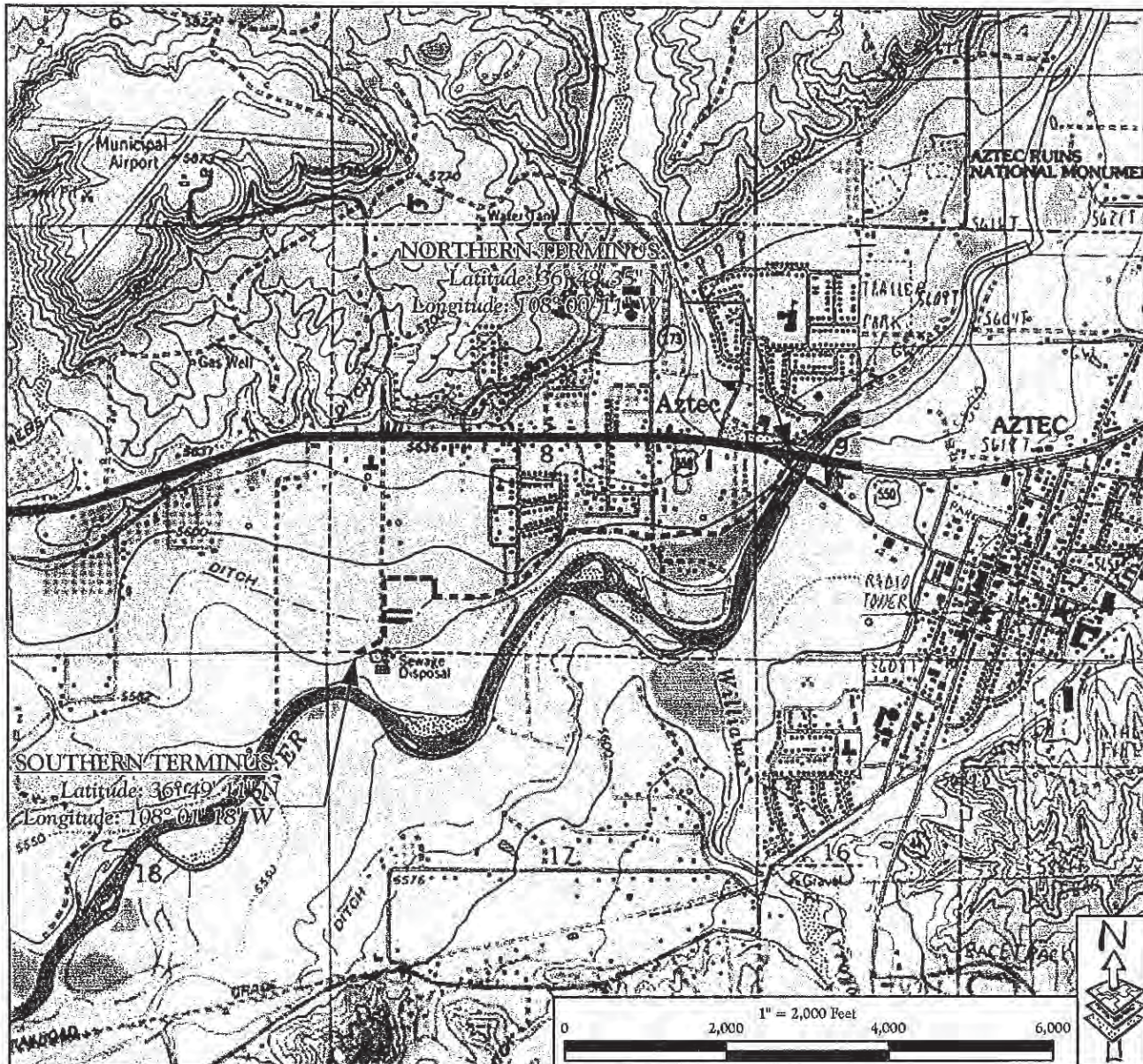
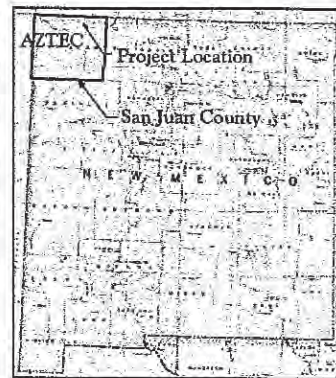
Sections 8, 9, and 17
Township 30 North, Range 11 West
New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9585

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

State of New Mexico
ENVIRONMENT DEPARTMENT
Office of the Secretary



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DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Governor Richard Luarkie
Pueblo of Laguna
PO Box 194
Laguna Pueblo, NM 87026

Dear Governor Luarkie,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

The City proposes to install a 24" sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico. The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from West Chaco St. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows just north of the Elledge Mill Ditch north of the Animas River (Figure 1). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Southwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on City property as well as across easements obtained or sought from San Juan County and privately owned lands.

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects – APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

The Class II inventory of the proposed Aztec Sewer Outfall Line yielded two previously recorded sites (LA 15235 and LA 122905) and one undocumented prehistoric site (possibly associated with the nearby LA 15186) within the area surveyed. Also, one undocumented historic ditch segment (Ellidge Mill Ditch) crosses and parallels the proposed project area. A segment of the ditch has been previously documented (LA 68214); however, eligibility to the National Register of Historic Places has not been determined for the segment. A Class III inventory is currently being conducted by El Morro CRM to identify and document all cultural resources within the project area, and to determine eligibility and protection measures for cultural resources.

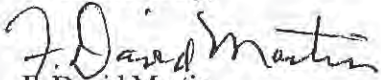
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A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Pueblo of Laguna to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Pueblo of Laguna to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Pueblo of Laguna has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Pueblo of Laguna has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin

Cabinet Secretary

New Mexico Environment Department

Enclosure: *Project Area Maps*

____ The Pueblo of Laguna has determined that the proposed project (described above) in San Juan County, New Mexico *will not* affect any objects, sites, or locations of traditional religious importance to the Pueblo of Laguna.

____ The Pueblo of Laguna has determined that the proposed project (described above) in San Juan County, New Mexico *will* affect objects, sites, or locations of traditional religious importance to the Pueblo of Laguna. The City and NMED should undertake further consultations with the Pueblo of Laguna in order to evaluate, consider, or avoid such locations.

Richard Luarkie, Governor

Date

PROJECT LOCATION:

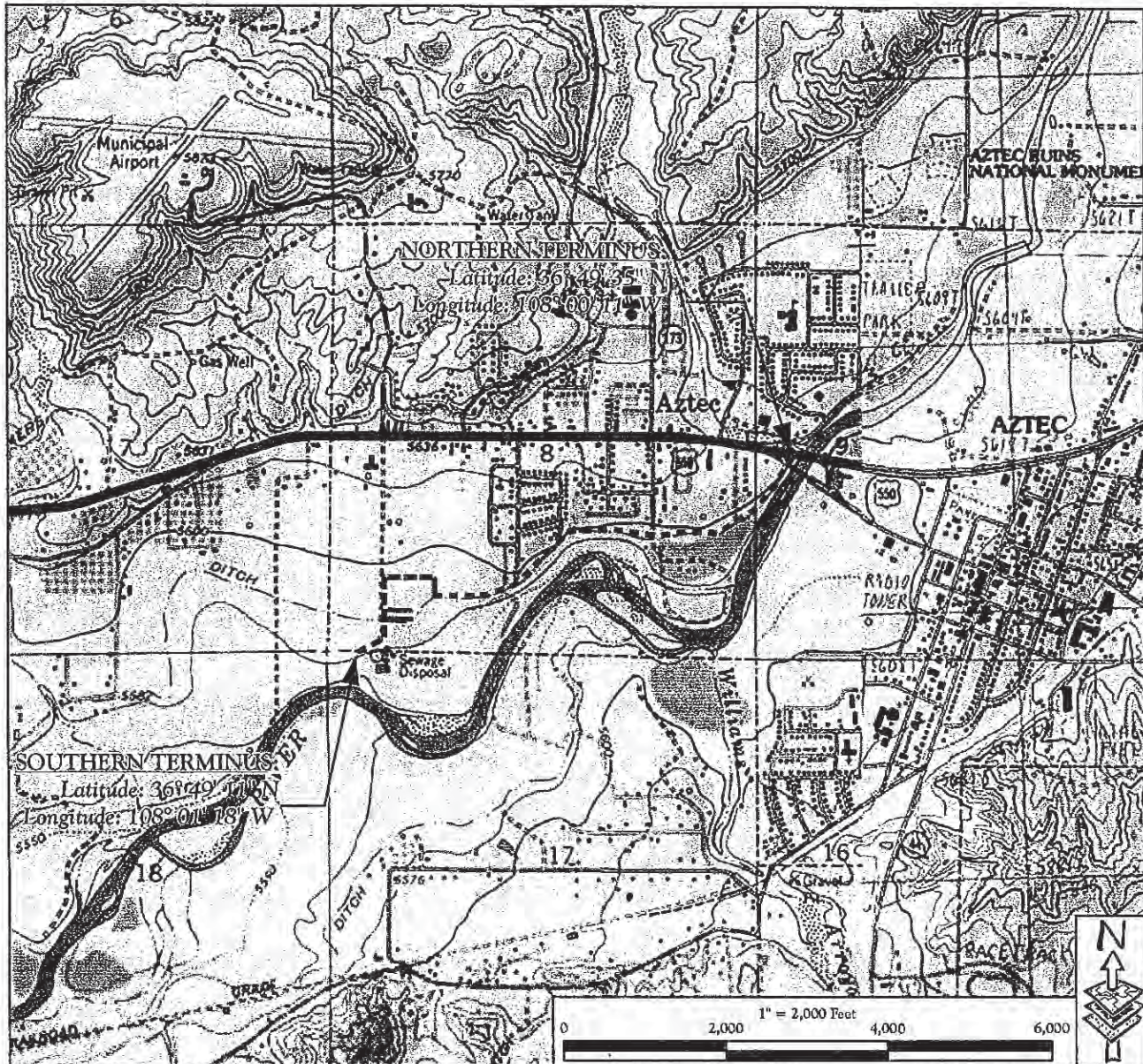
Sections 8, 9, and 17
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CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



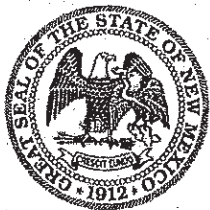
679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

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www.nmenv.state.nm.us

DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

President Ben Shelly
Navajo Nation
P.O. Box 9000
Window Rock, AZ 86515

Dear President Shelly,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

The City proposes to install a 24" sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico. The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from West Chaco St. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows just north of the Elledge Mill Ditch north of the Animas River (Figure 1). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. The legal description of the proposed project's location is as follows:

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The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on City property as well as across easements obtained or sought from San Juan County and privately owned lands.

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects –APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

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This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Navajo Nation to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Navajo Nation has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Navajo Nation has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin
Cabinet Secretary
New Mexico Environment Department

Enclosure: *Project Area Maps*

____ The Navajo Nation has determined that the proposed project (described above) in San Juan County, New Mexico **will not** affect any objects, sites, or locations of traditional religious importance to the Navajo Nation.

____ The Navajo Nation has determined that the proposed project (described above) in San Juan County, New Mexico **will** affect objects, sites, or locations of traditional religious importance to the Navajo Nation. The City and NMED should undertake further consultations with the Navajo Nation in order to evaluate, consider, or avoid such locations.

Ben Shelly, President

Date

PROJECT LOCATION:

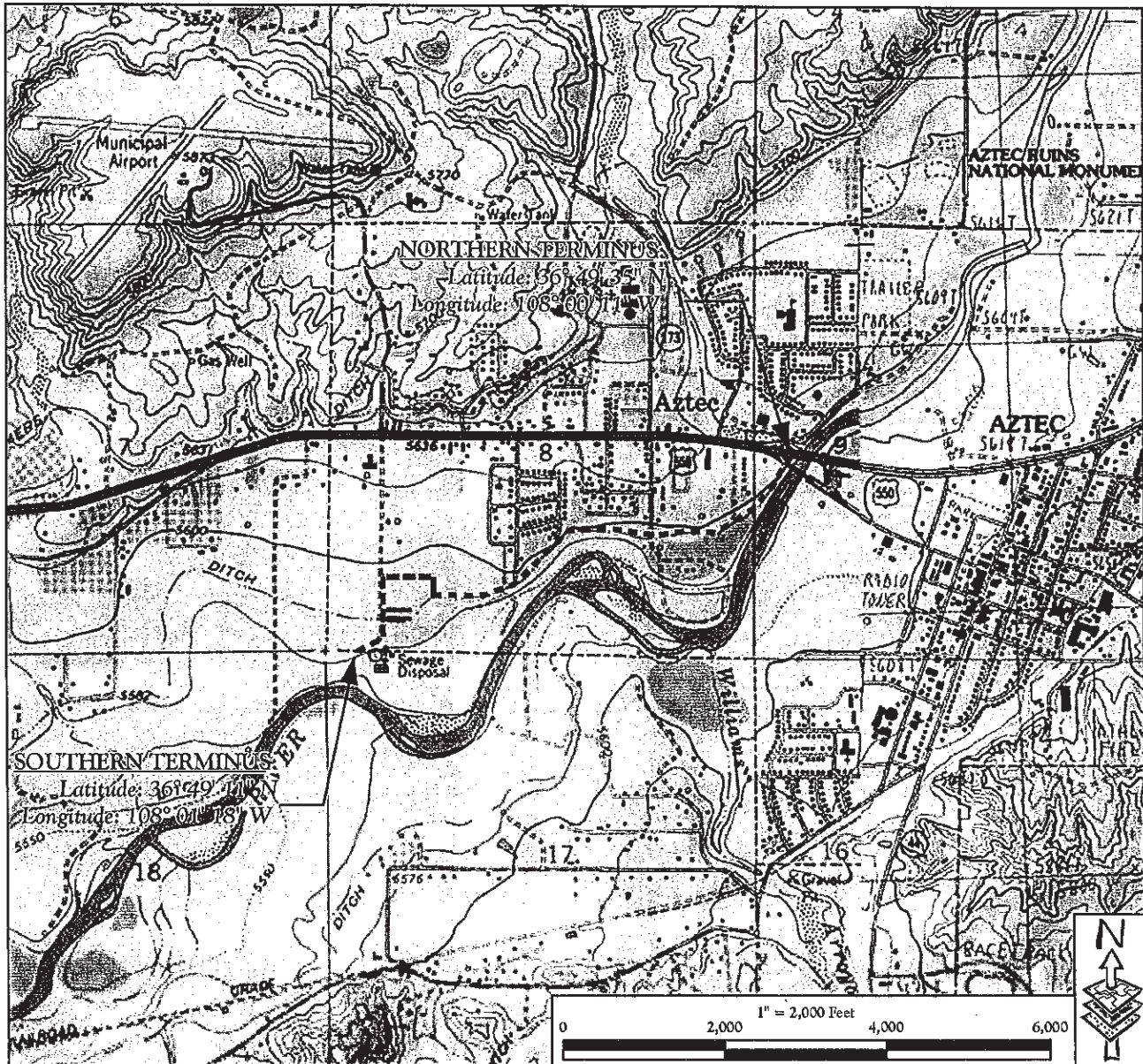
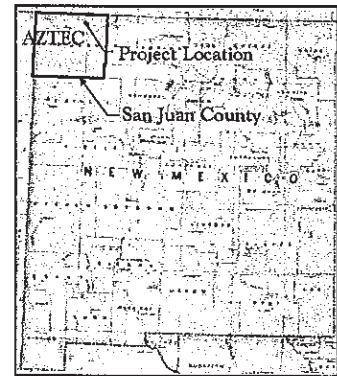
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LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-2855 Fax (505) 827-2836
www.nmenv.state.nm.us



DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Governor Ron Lovato
Ohkay Owingeh
PO Box 1099
San Juan Pueblo, NM 87566

Dear Governor Lovato,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

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Datum: NAD 83

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Datum: NAD 83

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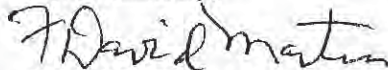
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This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Ohkay Owingeh to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Ohkay Owingeh has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Ohkay Owingeh has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin

Cabinet Secretary

New Mexico Environment Department

Enclosure: *Project Area Maps*

_____ The Ohkay Owingeh has determined that the proposed project (described above) in San Juan County, New Mexico **will not** affect any objects, sites, or locations of traditional religious importance to the Ohkay Owingeh.

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Ron Lovato, Governor

Date

PROJECT LOCATION:

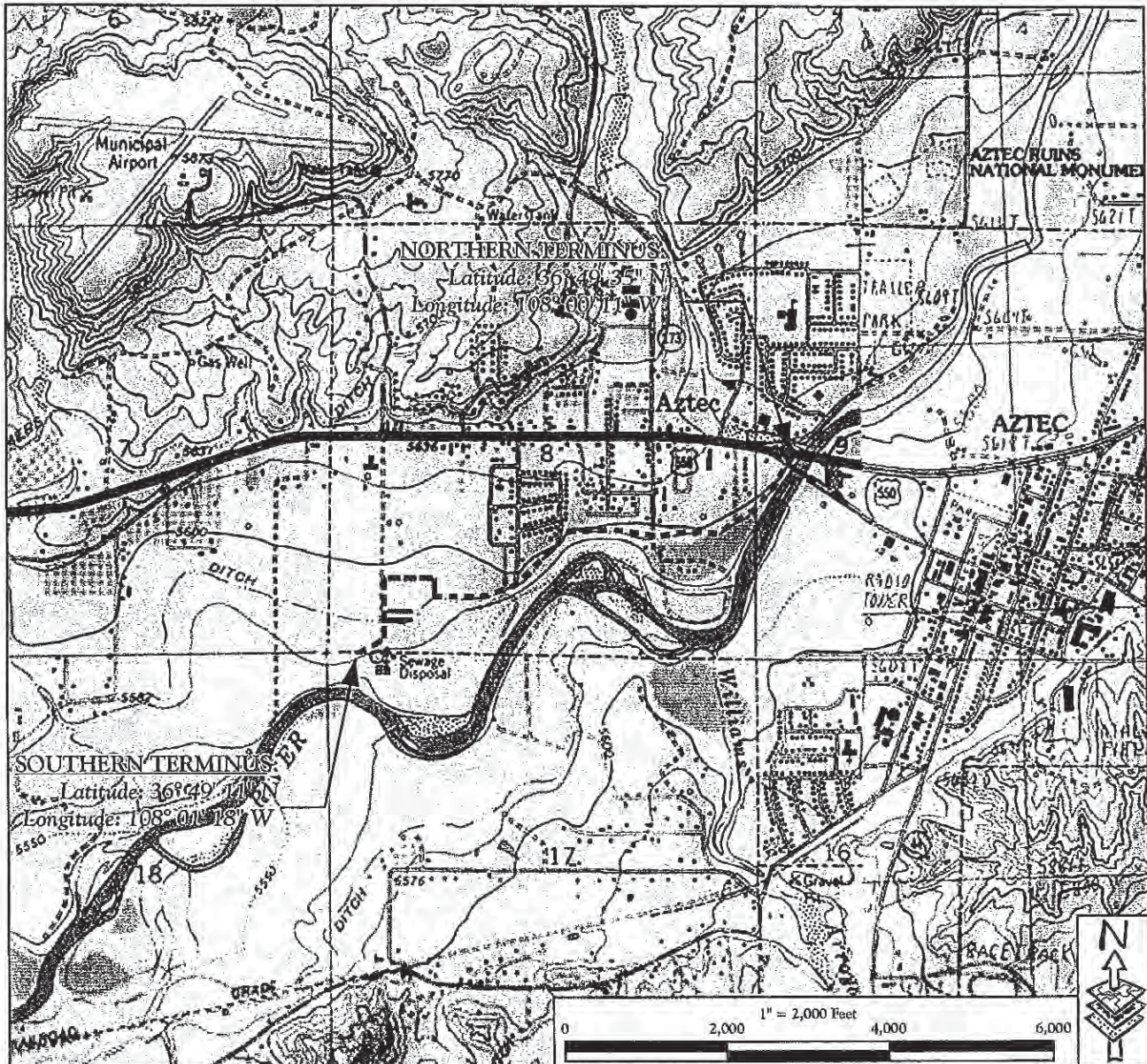
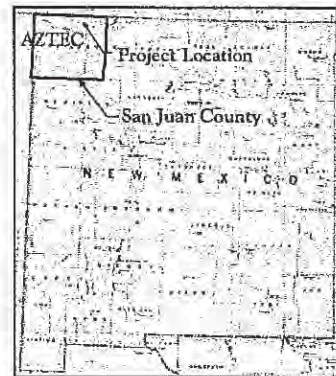
Sections 8, 9, and 17
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New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society



State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-2855 Fax (505) 827-2836
www.nmenv.state.nm.us

DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Chairman Jimmy R. Newton, Jr.
Southern Ute Indian Tribe
P.O. Box 737
Ignacio, CO 81137

Dear Chairman Newton,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

The City proposes to install a 24" sewer line primarily along an existing sewer line easement in San Juan County in northwest New Mexico. The proposed sewer line, the Aztec Sewer Outfall Line, would replace the existing outfall line from West Chaco St. west to South Oliver Dr. The proposed alignment along the existing easement roughly follows just north of the Elledge Mill Ditch north of the Animas River (Figure 1). The western end of the line would terminate at the Aztec Wastewater Treatment Plant off of South Oliver Dr. The legal description of the proposed project's location is as follows:

South ½ of Section 8 and Southwest ¼ of the Southwest ¼ of Section 9
Township 30N, Range 11W, New Mexico Principal Meridian (NMPM)
San Juan County, New Mexico

The proposed project is depicted on the Flora Vista, NM 7.5' U.S. Geological Survey (USGS) quadrangle map (Figure 1). The project area elevation ranges from 5,580 feet (ft) above mean sea level (msl) to 5,600 ft above msl. The GPS coordinates at the termini of the proposed sewer line are:

Eastern Terminus
Latitude: 36.8264° N
Longitude: 108.0032° W
Datum: NAD 83

Western Terminus
Latitude: 36.8196° N
Longitude: 108.0217° W
Datum: NAD 83

This action is being proposed on City property as well as across easements obtained or sought from San Juan County and privately owned lands.

The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects –APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

The Class II inventory of the proposed Aztec Sewer Outfall Line yielded two previously recorded sites (LA 15235 and LA 122905) and one undocumented prehistoric site (possibly associated with the nearby LA 15186) within the area surveyed. Also, one undocumented historic ditch segment (Ellidge Mill Ditch) crosses and parallels the proposed project area. A segment of the ditch has been previously documented (LA 68214); however, eligibility to the National Register of Historic Places has not been determined for the segment. A Class III inventory is currently being conducted by El Morro CRM to identify and document all cultural resources within the project area, and to determine eligibility and protection measures for cultural resources.

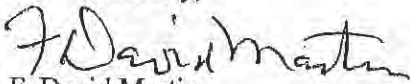
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A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Southern Ute Indian Tribe to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Southern Ute Indian Tribe to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Southern Ute Indian Tribe has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Southern Ute Indian Tribe has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin

Cabinet Secretary

New Mexico Environment Department

Enclosure: *Project Area Maps*

_____ The Southern Ute Indian Tribe has determined that the proposed project (described above) in San Juan County, New Mexico *will not* affect any objects, sites, or locations of traditional religious importance to the Southern Ute Indian Tribe.

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Jimmy R. Newton, Jr., Chairman

Date

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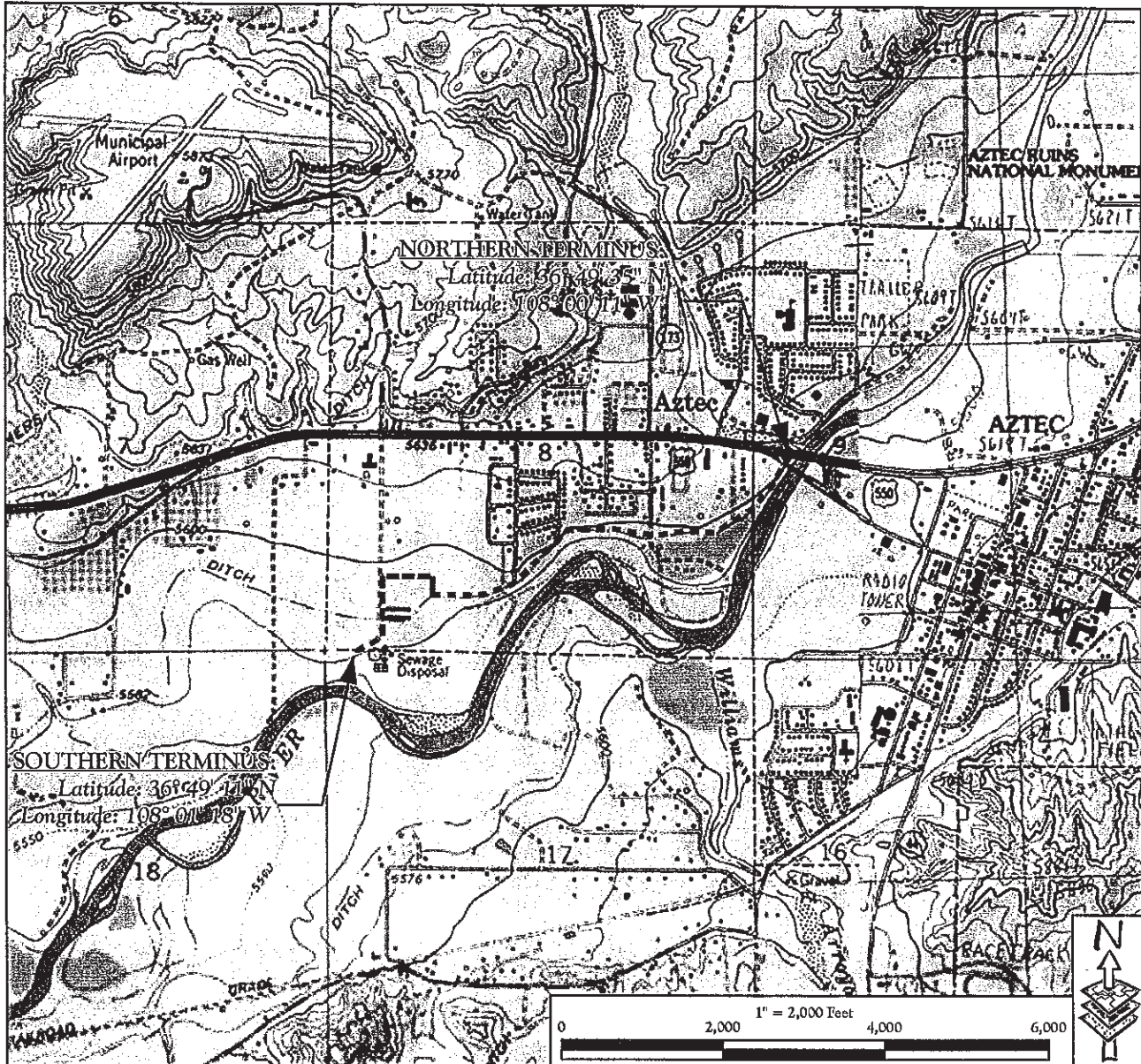
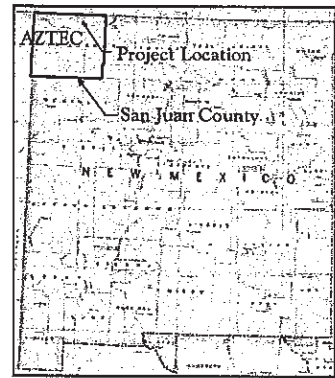
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DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Governor Ramos Romero
Pueblo of Tesuque
Route 42, Box 360-T
Santa Fe, NM 87506

Dear Governor Romero,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

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Datum: NAD 83

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The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

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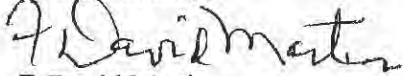
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A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Pueblo of Tesuque to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Pueblo of Tesuque to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Pueblo of Tesuque has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Pueblo of Tesuque has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin

Cabinet Secretary

New Mexico Environment Department

Enclosure: *Project Area Maps*

____ The Pueblo of Tesuque has determined that the proposed project (described above) in San Juan County, New Mexico **will not** affect any objects, sites, or locations of traditional religious importance to the Pueblo of Tesuque.

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Ramos Romero, Governor

Date

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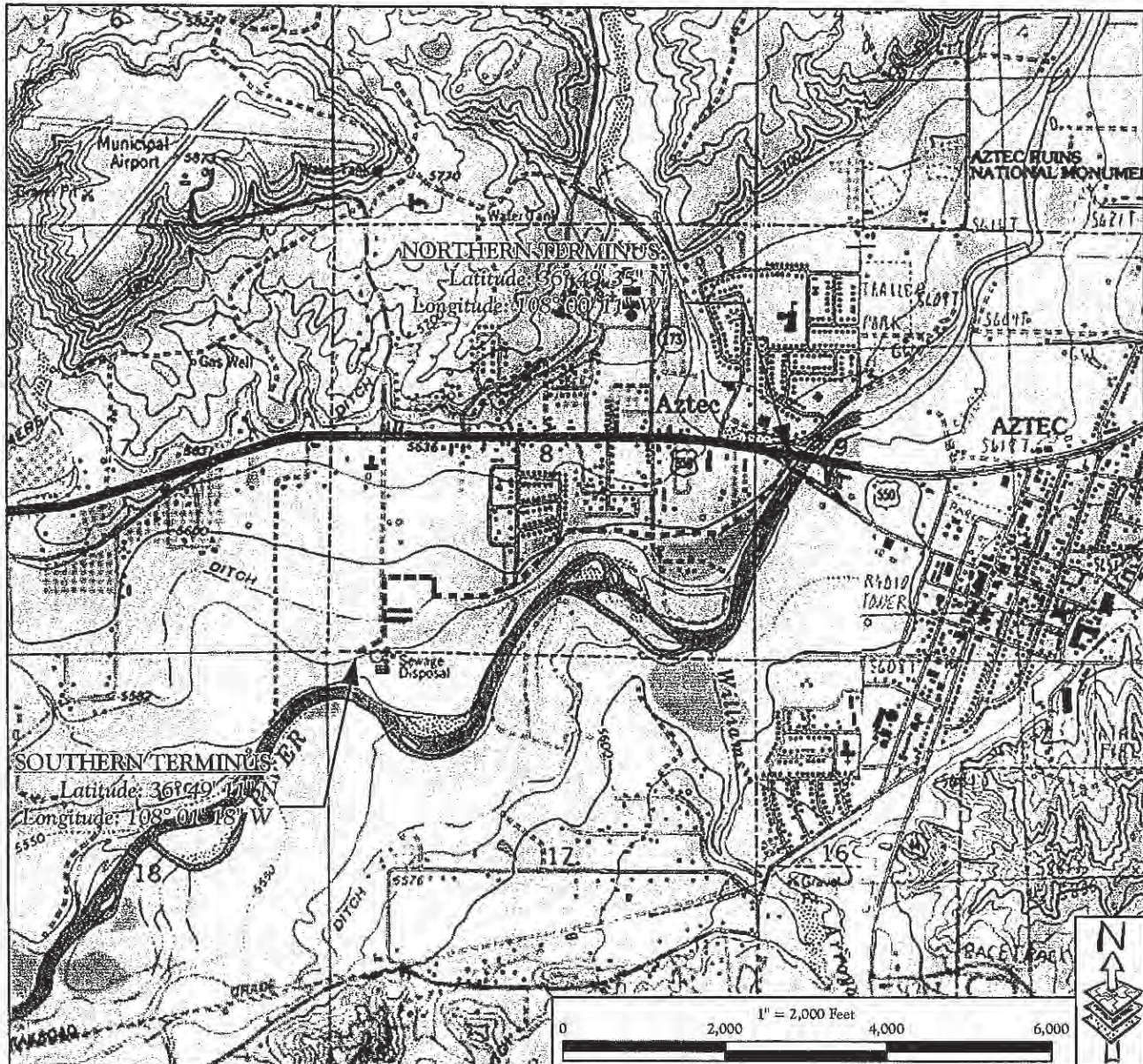
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AZTEC SEWER OUTFALL LINE
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DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Chairman Gary Hayes
Ute Mountain Ute Tribe
P.O. Box 248
Towaoc, CO 81334

Dear Chairman Hayes,

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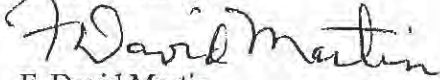
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Yours sincerely,



F. David Martin
Cabinet Secretary
New Mexico Environment Department

Enclosure: *Project Area Maps*

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Date

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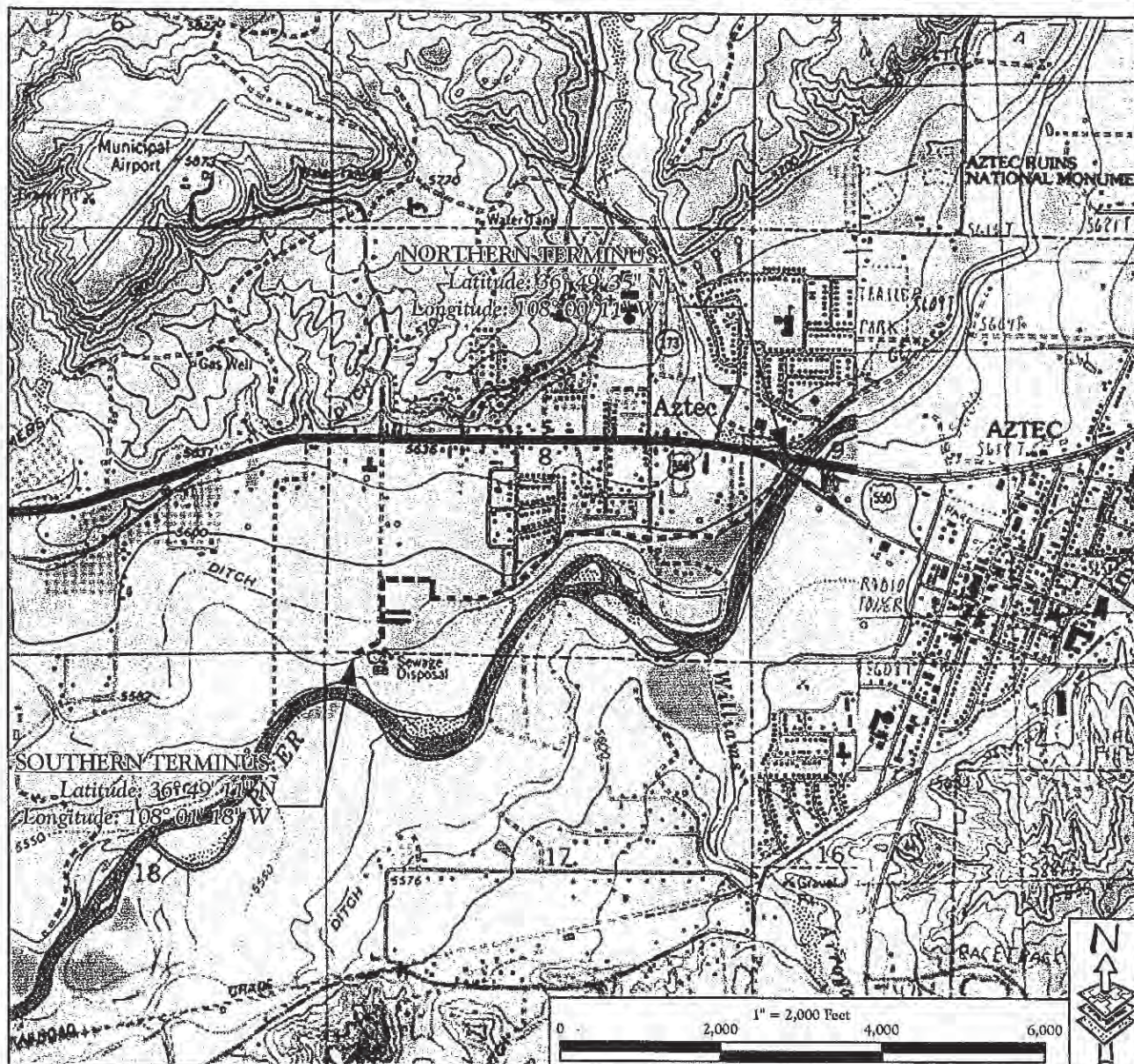
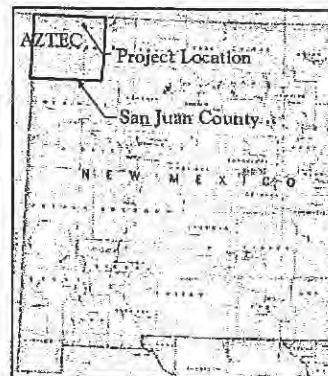
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FIGURE 1

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DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

October 2, 2012

Governor Wilfred Shue
Pueblo of Zia
135 Capitol Square Dr.
Zia Pueblo, NM 87053-6013

Dear Governor Shue,

The City of Aztec (City) has requested funding for the replacement of the City's main sewer outfall line from New Mexico Environment Department administered Clean Water State Revolving Funds (CWSRF). The City is in the process of performing an environmental review pursuant to the National Environmental Policy Act (40 Code of Federal Regulations Parts 6, 25, 35, and 1500) as followed by the Environmental Protection Agency, United States Department of Agriculture Rural Utility Service Bulletin 1794A-602, and New Mexico Administrative Code 20.7.7.

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The proposed action would require the placement of a new sewer line primarily within the existing easement of an existing sewer line. Approximately 7,181 feet of sewer line would be installed. The proposed sewer line would leave the existing easement for approximately 1,500 feet at the western end of the proposed alignment in order to avoid buildings that overlay the existing easement. Construction of the proposed pipeline would require clearing of a right-of-way and developing temporary use areas (as needed), trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Portions of the line would be bored underground where needed in order to minimize effects to ditches, adjacent structures, existing utilities, steep embankments, and other surface resources. Approximately 1,680 feet of the line would be bored underground and would not result in new surface disturbance. The City plans to develop a 60-foot wide temporary easement (30 feet each side of the alignment) and a 30-foot wide permanent easement (15 feet each side of the alignment). Total surface area for the proposed easement would be approximately 7.58 acres. Effects beyond the area of immediate disturbance are expected to be minimal and are likely to occur within 100 feet of the 60-foot wide temporary easement (Area of Potential Effects –APE).

The proposed alignment primarily follows relatively undeveloped areas that occupy a steep slope between an upland terrace to the north, generally developed for residential use and to a lesser degree commercial use, and generally undeveloped lands to the south along the valley bottom of the Animas River. The western end of the alignment would follow existing roadways through an area of commercial development.

A Class II selective cultural resource survey has been completed for the proposed project. The survey was conducted by SME Environmental, Inc. (formerly Sugnet & Moore, Inc.). Methods included an online search of the Museum of New Mexico Archaeological Records Management System, a review of the National Register of Historic Places (NRHP) and New Mexico State Register of Cultural Properties, and a review of the San Juan County Assessor's Office for records of possible historic properties along the project alignment. Van Valkenburgh (1974) was consulted to identify possible traditional cultural properties (TCP) within one mile of the project area, and a pedestrian survey of the project area and 50 ft cultural buffer survey on either side of the ROW, when possible.

The Class II inventory of the proposed Aztec Sewer Outfall Line yielded two previously recorded sites (LA 15235 and LA 122905) and one undocumented prehistoric site (possibly associated with the nearby LA 15186) within the area surveyed. Also, one undocumented historic ditch segment (Ellidge Mill Ditch) crosses and parallels the proposed project area. A segment of the ditch has been previously documented (LA 68214); however, eligibility to the National Register of Historic Places has not been determined for the segment. A Class III inventory is currently being conducted by El Morro CRM to identify and document all cultural resources within the project area, and to determine eligibility and protection measures for cultural resources.

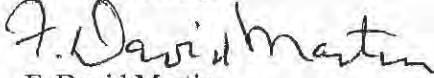
Aztec Ruins, 0.6 mile to the north, has been identified as a Navajo affiliated TCP and retains significance for modern Pueblo groups. Aztec Ruins (*Kin niteel* or Wide House) is a place sacred to the Navajo, with numerous chantway and rite associations (Van Valkenburgh 1974:141).

A cultural survey is being conducted to fulfill the responsibilities of the City and NMED and assist them in meeting the requirements of the New Mexico Cultural Properties Act (18-6-1 through 18-6-17 New Mexico Statutes Annotated [NMSA] 1978), the Prehistoric and Historic Sites Preservation Act (18-8-1 through 18-8-9 NMSA 1978), and applicable regulations. As part of this process, the NMED and the City required to consult with the Pueblo of Zia to aid in identifying any areas of traditional religious or cultural importance that may be within the project's APE. A map is enclosed for your assistance in identifying the project area.

This consultation also serves to ensure that the City and NMED are following the policies related to the American Indian Religious Freedom Act (AIRFA). Many traditional cultural sites clearly fall into the protection of AIRFA. Given the cultural sensitivity of religious locations, they may not be subjected to the same documentation and evaluation as historic or archaeological sites. If religious locations are identified within the proposed project area, the involved parties will work with the Pueblo of Zia to avoid and protect the identified location(s) without disclosing any specific information as to the site locations or the nature of the religious activities.

Please indicate by checking one of the boxes below whether the Pueblo of Zia has concerns regarding any traditional religious or cultural areas within the proposed project area, and return this form by mail to the address above or by fax to (505) 222-9510, Attn: David Bishop. Your response will help us determine if further consultation is needed with your nation. If we do not hear from you within 30 days of the receipt of this letter, we will assume that the Pueblo of Zia has no concerns or comments, and we will move forward with the process. Please contact David Bishop, Project Manager, at (505) 222-9567 if you have any questions or concerns. Thank you for your time and consideration.

Yours sincerely,



F. David Martin
Cabinet Secretary
New Mexico Environment Department

Enclosure: *Project Area Maps*

_____ The Pueblo of Zia has determined that the proposed project (described above) in San Juan County, New Mexico **will not** affect any objects, sites, or locations of traditional religious importance to the Pueblo of Zia.

_____ The Pueblo of Zia has determined that the proposed project (described above) in San Juan County, New Mexico **will** affect objects, sites, or locations of traditional religious importance to the Pueblo of Zia. The City and NMED should undertake further consultations with the Pueblo of Zia in order to evaluate, consider, or avoid such locations.

Wilfred Shue, Governor

Date

PROJECT LOCATION:

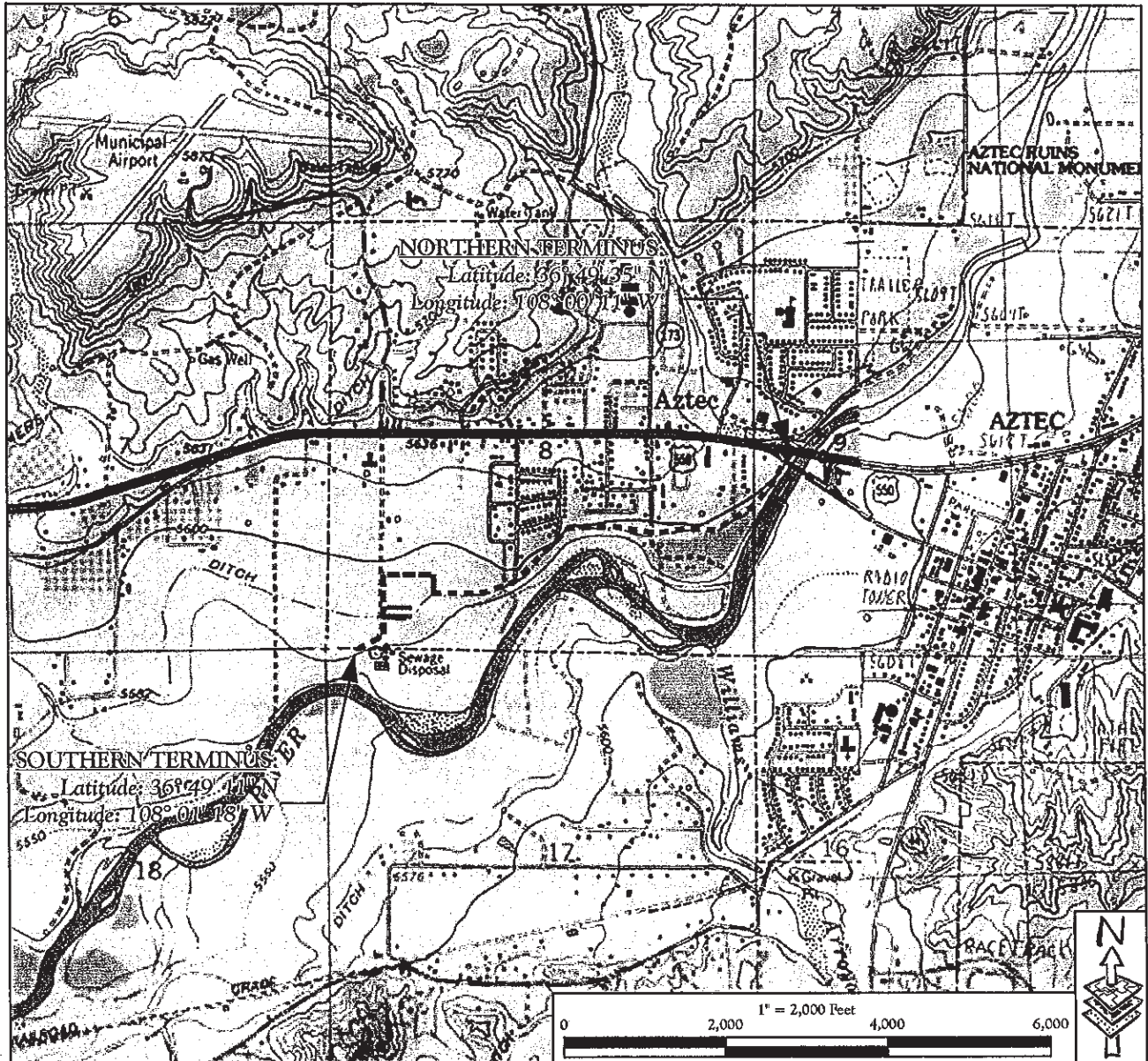
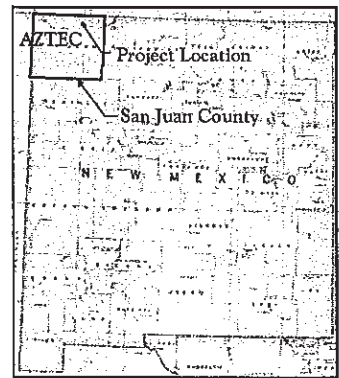
Sections 8, 9, and 17
Township 30 North, Range 11 West
New Mexico Principal Meridian,
San Juan County, New Mexico.

CENTROID LOCATION:

Latitude: 36° 49' 25" N
Longitude: 108° 00' 46" W

LEGEND

----- Sewer Outfall Line



679 E. 2nd Ave. - Unit E2
Durango, Colorado 81301
www.sme-env.com (970) 259-9595

PROJECT LOCATION MAP

AZTEC SEWER OUTFALL LINE
PROJECT SUMMARY

FIGURE 1

Source: Flora Vista, New Mexico
7.5' USGS Quadrangle
Copyright: © 2010 National Geographic Society

APPENDIX G

Public Involvement Documentation

Aztec Sewer Outfall Line
Public Involvement Documentation

Contents

- Public Notice of Hearing – affidavit (1 page)
- Landowner Notice Letter (1 page)
- Landowner Mailing List (1 page)
- Public Hearing Minutes (3 pages)
- Audio recording of Public Hearing (on file with NMED Construction Programs Bureau, available upon request)

Post-It® Fax Note 7671		Date 11-21	# of pages 2
To Karla S.	From Carletta D		
Co./Dept. City Clerk	On. Legal Notice		
Phone #	Phone # 505-4566		
Fax # 334-7609	Fax #		

**NOTICE OF PUBLIC HEARING
CITY OF AZTEC
SEWER OUTFALL LINE REPLACEMENT**

Date: Thursday, January 3, 2013

Time: 6:00 PM

Place: Aztec City Hall, Commission Meeting Room - 201 W. Chaco St., Aztec, NM

Agenda: 6:00 PM to 6:10 PM - Introduction
6:10 PM to 6:20 PM - Presentation of project background and purpose
6:20 PM to 6:40 PM - Presentation of alternatives identified to date and process to follow
6:40 PM to TBD - Public question/answer and comments

Purpose: The City of Aztec (City) has applied for funding from the Clean Water State Revolving Fund (CWSRF) loan program to replace the City's existing sewer outfall line from West Chaco St. west to the City's wastewater treatment plant on South Oliver Dr., primarily following the Elledge Mill Ditch. The purpose of this public meeting is to provide notice of the proposed project, identify issues of concern, present the range of alternatives considered, identify potential cooperating agencies and other stakeholders, and enlist public participation in development of the project plan. A draft Environmental Information Document is available online at <http://www.aztecnm.gov/publicworks/department.htm>.

Contact: For more information contact:

City of Aztec
Attn: Karla Sayler, City Clerk
201 W. Chaco
Aztec, NM 87410
(505) 334-7600

NOTICE TO PERSONS WITH DISABILITIES: If special assistance is required to participate in this public meeting, please contact the person above at least three days prior to the meeting so arrangements can be made.

Legal No. 68344 published in The Daily Times on November 25, 2012.

NOTICE OF PUBLIC HEARING
CITY OF AZTEC
SEWER OUTFALL LINE REPLACEMENT

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Purpose: The City of Aztec (City) has applied for funding from the Clean Water State Revolving Fund (CWSRF) loan program to replace the City's existing sewer outfall line from West Chaco St. west to the City's wastewater treatment plant on South Oliver Dr., primarily following the Elledge Mill Ditch. San Juan County Tax Assessor's Office data shows the sewer line easement passes across or adjacent to your property

The purpose of this public meeting is to provide notice of the proposed project, identify issues of concern, present the range of alternatives considered, identify potential cooperating agencies and other stakeholders, and enlist public participation in development of the project plan. A draft Environmental Information Document is available online at <http://www.aztecnm.gov/publicworks/departments.htm>.

Contact: For more information contact:

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Aztec, NM 87410
(505) 334-7600

NOTICE TO PERSONS WITH DISABILITIES: If special assistance is required to participate in this public meeting, please contact the person above at least three days prior to the meeting so arrangements can be made.

Mailed November 21, 2012

**Aztec Sewer Outfall Line
Public Hearing Notice
Mailing List**

Aztec School District
1118 W Aztec Blvd.
Aztec, NM 87410

Shane & Jennifer Chance
64 Road 2785
Aztec, NM 87410

John Chapman
270 Road 2900
Aztec, NM 87410

Charlotte G. Paul Trust
410 S Swire
Aztec, NM 87410

Wayne Alexander Deifel et al
2200 Unit 41 El Portal Drive
Bakersfield, CA 93309

Evangelical Lutheran Good
Samaritan Society
500 Care Ln.
Aztec, NM 87410

Michael & Delphine Johnson
15 Road 2360
Aztec, NM 87410

Tito & Peggy Gallegos
237 Riverview Dr.
Aztec, NM 87410

Clora Lawson
239 Riverview Dr.
Aztec, NM 87410

Land Locked LLC
800 N Auburn
Farmington, NM 87401

Sandy Scott Trust
PO Box 1149
Aztec, NM 87410

San Juan County
100 S Oliver Dr.
Aztec, NM 87410

Schwan's Sales Enterprises Inc.
PO Box 35
Marshall, MN 56258

CITY OF AZTEC
Public Hearing
Sewer Outfall Line Replacement
January 03, 2013

I. CALL TO ORDER

City Engineer and Public Works Director, Mike Huber called the Meeting to order at 6:00 p.m. in the Aztec City Commission Room, City Hall, 201 W. Chaco, Aztec, NM

II. MEMBERS PRESENT:

Public Works Director, Mike Huber;
SME Environmental, Inc., Nathan
Kirker; SME Environmental, Inc.,
Kerianne Zdimac; Huitt- Zollars, Scott
Eddings; City Clerk, Karla Saylor;
(see attendance sheet)

Public Works Director, Mike Huber, opened the meeting by introducing himself, as well as the team of people that are at his aid for the completion of this project. Scott Eddings, with Huitt-Zollars, Inc., Nathan Kirker, and Kerianne Zdimac with SME Environmental Inc., were among the team in attendance at the meeting. Mr. Huber stated that there was a sign-in sheet and requested that anyone not signed in do so, and stated that there are forms on the table for anyone who wants to submit written questions about the project. Mr. Huber stated that the purpose of this meeting is to discuss the proposed project, while addressing public concerns and environmental impacts. The project in discussion is that of the Sewer Outfall Line Replacement. Mr. Huber gave a background on the sewer outfall line and history of the project, explaining that it is a main sewer line for the City, and that at Riverside Park it becomes the sole line carrying sewerage for the city, from about 700,000 gallons of wastewater to one million gallons of wastewater per day. The City of Aztec has applied for funding from the Clean Water State Revolving Fund (CWSRF) loan program to replace the City's existing sewer outfall line that runs from West Chaco St. to the City's wastewater treatment plant on South Oliver Dr. This line essentially follows the path of the Elledge Mill Ditch. Mr. Huber then discussed the need for the replacement of the line. Mr. Huber went on to state that the current sewer line is approximately twelve (12) inches in diameter and is composed of a vitreous clay pipe. He also stated that this sewer line was built in the 1950's and has most likely already started to deteriorate, and that visual inspections have indicated that is the case. Mr. Huber stated that the existing line is too flat, and that in some areas has a reverse grade. He stated that the line flows at capacity due to the lack of grade. He mentioned that his biggest fear is for the deteriorated sewer line to collapse, hence, having waste overflow into both the ditch and the Animas River. Another fear that Mr. Huber discussed was to have waste flow out or ooze from the various manholes around town, in the deteriorated sections of the sewer line. Mr. Huber explained that both of these scenarios would be environmental disasters, as well as very costly for the City of Aztec. During this meeting, Mr. Huber advocated the proposed project to replace the sewer line. He stated that other than the replacement of the sewer line, there are two other options. The first option is to line the entire pipe of the sewer line using CIPP. While this is an option, Mr. Huber declared that his analysis indicated this was not a feasible alternative, due to the fact that the pipe is so flat, that it will not be able to hold capacity in wastewater, and therefore wastewater would not have the proper velocity. The other option is to take no action. However, if no action is taken, Mr. Huber warned that eventually the sewer line will collapse and there will be wastewater and sewage flowing into the river and ditch. He stated that he believed this not be a viable option. Finally, Mr. Huber spoke about the third option, which would be a relocation of the sewer line. Mr. Huber explained that a relocation was not feasible due to the terrain, lack of right-of-way,

and the current configuration of the system. During the meeting, various citizens brought up their concerns regarding the proposed project. Concerns stated included

1) Can the City relocate the line into Riverside Park? Mr. Huber stated that although his analysis indicated this was not a viable option, he would have the engineer explore this alternative again.

2) What will the City do about restoring the construction areas, since in the past the City has not lived up to its obligation to clean up after repairs? Mr. Huber stated that restoration will be the responsibility of the contractor, and the City will ensure that the site is restored, and that any environmental issues are monitored (i.e. wetlands reconstruction) and that he will make sure that the citizens are satisfied.

3) What will the City do about any driveways that are torn up during construction? Mr. Huber stated any damage done will be addressed during construction.

4) What is the City's plan for areas where there is a very steep slope? Concerns were expressed about damage to land outside the easement due to construction on slopes. Mr. Huber stated that in these areas, borings and or pipe bursting techniques will be utilized instead of open trench construction.

5) What is the City's plan for the sewer line where it is under buildings? Mr. Huber stated that where people have built over the sewer line, the City would use boring instead of open trenches. The citizen asked if this would cause settling of the soil, and Mr. Huber stated that under normal circumstances, settling is not a problem with pipe bursting techniques, which is what will be used to avoid open trench construction near and under buildings.

Mr. Huber clarified any questions that were asked. Mr. Huber ended the meeting by thanking the attendees for coming and by stating that if they had any other questions or concerns, to please feel free to contact him.


III. ADJOURNMENT

The meeting was adjourned at 7:15 pm.

MINUTES PREPARED BY:


Brianna Olguin, Support Services Secretary

ATTEST:


Karla H. Sayler, City Clerk



ATTENDANCE SHEET

PUBLIC HEARING SEWER OUTFALL LINE REPLACEMENT

DATE: 1-3-12

PAGE 1 of 1

--- PLEASE PRINT---

NAME	ADDRESS OR AFFILIATION
Clara Lawson	237 Revere, Aztec
DAVID LAWSON	621 EDWARDS ST AZTEC
Nathan Kirker	SME Environmental, Inc
KERRIANNE ZIMMER	SME ENVIRONMENTAL INC.
Windy Paul	@1114 W Aztec Blvd
Charlotte Paul	410 Swire Dr.
R. S. Chavez	1000 W. Aztec Blvd
Jack Scott	320-4548 PO Box 1149 Aztec NM 87412
Scott Edlings	Hu.H. Zollars.com



Environmental Development Section

TO: Arthur J. Montoya, Huitt-Zollars, Inc.

DATE: June 24, 2014

SUBJECT: Environmental Clearance for installation of 18" HDPE DR21 SAS line; NM 516 ROW at intersection with Animas River in San Juan County, New Mexico

FROM: Gary Funkhouser

The NMDOT Environmental Development Section is not requiring full cultural resource or environmental surveys. However, because there are trees located within the APE for the proposed project, if construction is undertaken between March 15 and September 15 (migratory bird season), the NMDOT is requiring that a qualified biologist conduct a migratory bird survey be conducted no more than two weeks prior to any project activities.

A brief letter report of the migratory survey will be sufficient – and I will approve the project based on a verbal or email confirmation from the biologist that there are no migratory bird concerns associated with the project.

If you decide to undertake the bird survey, please have the biologist contact me prior to fieldwork so that we can agree on a procedure for immediately granting environmental clearance once the survey is completed if no evidence of nesting is identified.

If you have any questions, I can be contacted at: (505) 827-5692 or gary.funkhouser@state.nm.us

Susana Martinez
Governor

Tom Church
Cabinet Secretary

Commissioners

Pete K. Rahn
Chairman
District 3

Ronald Schmeits
Vice Chairman
District 4

Dr. Kenneth White
Secretary
District 1

Butch Mathews
Commissioner
District 5

Jackson Gibson
Commissioner
District 6

**Migratory bird survey required no
more than 2 weeks prior to start of
construction.**

CULTURAL RESOURCE INVENTORY
NOT REQUIRED
NMDOT, ENVIRONMENTAL SECTION



New Mexico DEPARTMENT OF
TRANSPORTATION
MOBILITY FOR EVERYONE

REVIEWED

By Gary Funkhouser at 9:09 am, Jun 24, 2014

Environmental Clearance for Undertakings within

ENVIRONMENTAL SURVEY

NOT REQUIRED

In order to receive environmental clearance for permitted project
following information will need to be submitted to the NMDOT Er

NMDOT, ENVIRONMENTAL SECTION

Submittals (usually) are reviewed Tuesday of each week. Subm

not be reviewed until the following Tuesday. Emergency requests are handled on a case-by-
case basis.

1. **Purpose and Nature** of undertaking. Describe the undertaking along with width, length and depth of ground disturbance. Include the methods and machinery to be used.
Installation of 7,349 LF of 18" HDPE DR21 SAS line. A small portion will be in NMDot ROW installed by trenching method at 4 ft deep using excavator and loader
2. **Is your project resulting from a NMDOT project?** If so, provide the control and/or project number.
No
3. **Funding Source.** Is the funding private, state or federal? If state and/or federal, list agency(s).
Funding is from the State of New Mexico
4. **Land status.** Is the project on the right-of-way owned by BLM, Forest Service, Tribal land or State Trust land? (NMDOT does not own all highway rights-of-way!)
NA
5. **Permitting agencies.** List other permitting agencies involved besides NMDOT.
NMED-CPB.
6. **County.** List the county or counties in which the project is located.
San Juan County
7. **Highway number.** Indicate the highway, the project will cross or parallel.
NM 516
8. **BOP and EOP.** Provide the milepost locations for the beginning of the project area (BOP) and the end of the project area (EOP). If highway crossing only, list the milepost location, indicate BOP and EOP on quadrangle maps as well.
Project location is at the intersection of NM 516 and the Animas River at approximately mile marker 160.

9. **Side(s)** of the road. Indicate of which side of the road the project will be located using cardinal directions (north, south, east, west). List all project crossings of the highway by milepost.

Project will be all sides under the NM 516 bridge at the Animas river

10. **Length** of the project. Indicate the length of the project within NMDOT right-of-way in terms of feet and/or miles.

Length of project is approximately 150 LF

11. **Provide the legal description** of the project area: Township, Range, and Section(s).

T.30N, R.11W, Section 8

12. **USGS 1:24,000(7.5') Quadrangle map.** List the name(s) of the USGS quadrangle map(s) on which the project is located.

Flora Vista, NM 2013

13. Include the appropriate portion of the **USGS 1:24,000 (7.5') Quadrangle map(s)** with the project area indicated by an **X** if a crossing, or **BOP** and **EOP** if linear. **Do not reduce or enlarge.** Quad map images can be printed at no charge from the website <http://terraserver.usa.com/>.

14. **Do not** send photos (including aerial photos or photo maps) unless they are scanned or sent via US Mail. Faxed photos come out entirely black.

15. Include your name, company (if applicable), phone #, fax # and email address (if you use one).

16. Submit your requests by email, by fax **OR** by mail. Send in one format only- **DO NOT** send in multiple formats.

Send clearance requests to:

Genevieve Head, NMDOT-Environmental Design Division

1129 Cerrillos Road/P.O. Box 1149

Santa Fe, NM 87504

(for FedEx or UPS the ZIP code is 87501)

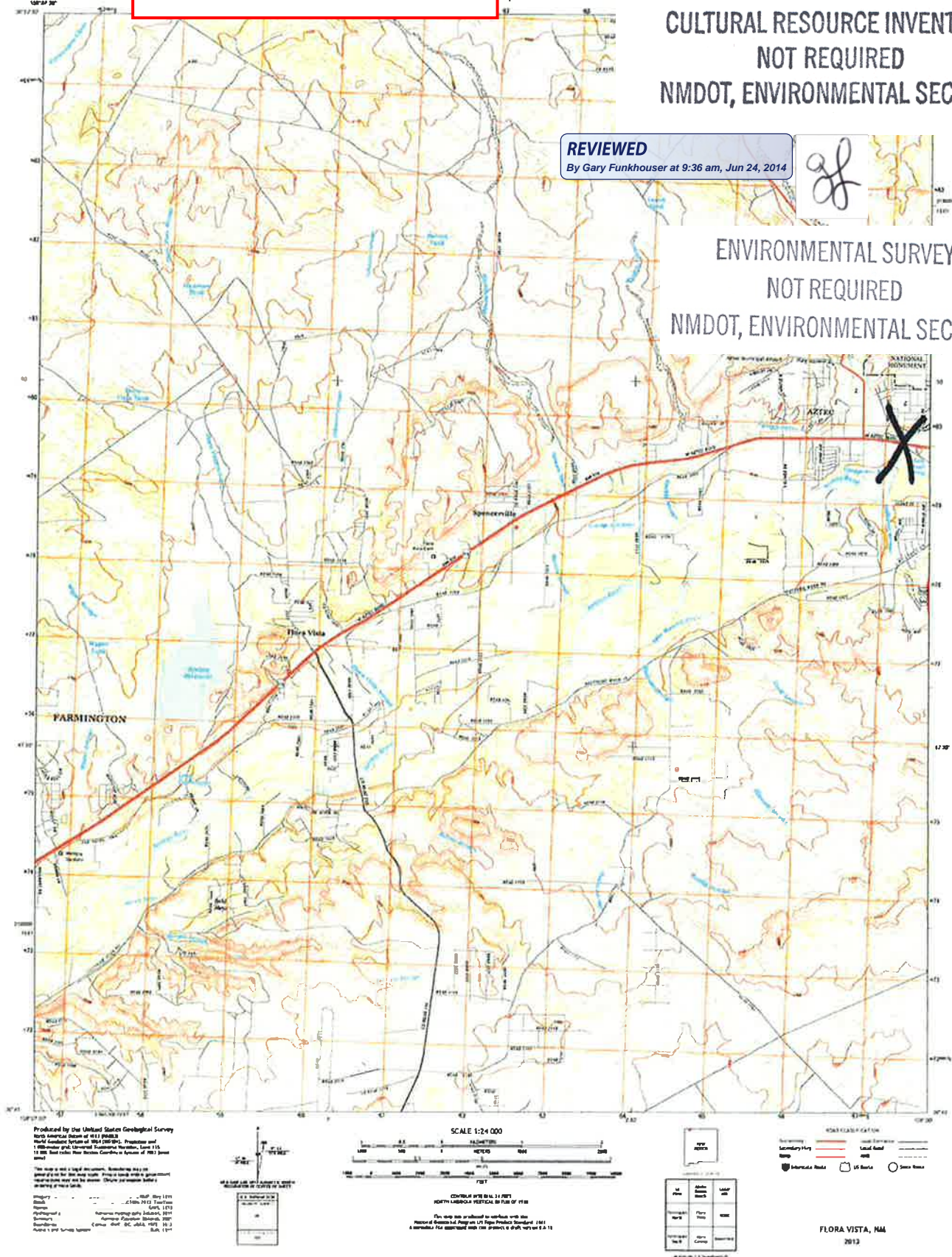
Phone: (505) 827-5356; **Fax:** (505) 827-0417; **Email:** genevieve.head@state.nm.us



USGS
United States Geological Survey

Topo

By Gary Funkhouser at 9:36 am, Jun 24, 2014

FLORA VISTA, NM
2013

GENERAL NOTES

1. **Workmanship and Materials.** shall conform to New Mexico State Highway Department Specifications 1954.
2. **CONCRETE:** For Structural Cast-In-Place Concrete - Class "A".
Chamfer all exposed edges of concrete structures 1/4 inch unless noted otherwise on details.
3. **REINFORCING STEEL.** All Reinforcing Steel to be deformed bars, intermediate grade, conforming to A.S.T.M. specifications A15 and A-305. Dimensions refer to centerline of bar unless noted otherwise. All bends shall be made to a radius of not less than 3 bar diameters.
4. **STRUCTURAL STEEL.** Structural Steel to be Carbon Steel conforming to A.S.T.M. specification A-7. Shop plans must be approved by the Engineer before fabrication is started.
5. **FIELD CONNECTIONS.** Holes for field splice connections shall be sub-punched 1/16 inch diameter and reamed to 1/8 inch diameter with connecting parts assembled, or reamed through a metal template not less than one inch thick, or holes may be drilled to 1/8 inch diameter with connecting parts assembled, or through a metal template not less than one inch thick. If holes are reamed or drilled with connecting parts assembled, such parts are to be match marked. Field splice connections shall be made with 3/4 inch diameter power driven rivets or with 3/4 inch diameter high tensile strength steel bolts. Splice connections shall be adequately drift pinned and bolted before riveting, or drift pinned before bolting.
6. **STRAIGHTENING.** All Flanges of steel stringers at bearings shall be straightened perpendicular to the web before stiffeners are fitted. After fabrication, the sole plates and masonry plates shall be straightened or shall be finished top and bottom. The thickness of plates noted on the plans refers to the finished thickness.
7. **WELDING:** All welding shall be done with a shielded Electric Arc and shall conform to American Welding Society Specifications pertaining to highway and railway bridges.
8. **PAINT.** Paint all structural steel members one field coat of red Lead and Linseed Oil and two field coats of Aluminum Paint. Omit paint on contact surfaces and surfaces embedded in concrete. Paint surfaces of Railing Posts in contact with concrete and Post stumps with three field coats as required above before erection. No increase in the computed weight of structural steel will be allowed for paint.
9. **FOUNDATION DATA.** Foundation Data shown are for design purposes only and are not intended as information for the contractor.
10. **BRIDGE NUMBER PLATES.** The contractor will be required to furnish and place two 6 inch by 4 inch by 1/2 inch Bridge Number Plates conforming to the design furnished by the Highway Department. Cost of such plates to be included in the unit price bid for concrete.
11. **BRIDGE SEATS.** The top surface of bridge seats shall be accurately struck off to a plane surface. Where necessary, bearings shall be brought to the correct elevation by placing steel shim plates between the steel lead and steel masonry plate. After completion of the bridge and the approach roadways, the top surfaces of all bridge seats shall be thoroughly cleaned of all dirt, concrete and other deposited material.
12. **ANCHOR BOLTS.** Anchor Bolts must be placed in drilled holes and grouted in the exact position as shown on the plans.

SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS

- Supplemental Specification pertaining to Section 73 - Portland Cement Concrete, 10-8-56
Special Provision Modifying Section 74 - Concrete Structures, 6-17-55 Rev. 10-5-55
* Supplemental Specification pertaining to Section 97 - Bearing Piles, 4-2-50 Rev. 11-20-56
Special Provision Modifying Section 92 - Structural Steel and Section 93 - Steel Structures, 9-10-55
Special Provision pertaining to the use of High Tensile Strength Steel Bolts for connecting Steel Members, 2-24-54
Supplemental Specifications for Grooved Joints, 10-0-55
Special Specification for Metal Bridge Railing, 5-22-57
Special Provision Modifying Section 10 - Excavation for Structures, 6-17-55 Rev. 2-27-57
Special Provision Modifying Section 18 - Embankment (Bridges), 4-24-54
Special Specification for Riprap, 4-2-58
Special Provision Relative to Driving Abutment Piles, 6-10-59
* Addendum to this Supplemental Specification for this project:
Piles may also be driven with a diesel hammer of not less than 15,000 ft-lbs. energy.

DRAWINGS REQUIRED

Notes and Quantities	Sheet A-1,	Drwg. 709-0
Structure Location Sheet	Sheets A-2, A-3,	Drwg. 709-1
Superstructure Details	Sheets A-4, A-5, A-6, A-7, A-8,	Drwg. 709-2
Pier Details	Sheets A-9, A-10, A-11,	Drwg. 709-3
Abutment Details	Sheets A-12, A-13,	Drwg. 709-3
Steel Bridge Railing Details		Serial BR-1-59
Bank Protection Details		Serial B-P-3
Bridge Approach Slab		Serial-58-1

WATERWAY DATA

DRAINAGE AREA: 1250 Sq. Miles - Rolling
WATERWAY AREA RECOMMENDED: 1868 sq. ft. to pass estimated 50 year
recurrent flood of 23,400 cfs.
AREA OF EXISTING STRUCTURES: Bridge No. 119 Located 130 ft. downstream
affords 8293 sq. ft. to bottom of bottom chord.
SCOUR: Very little expected.
DEBRIS: Weeds, brush & a few cottonwood logs.
SLOPE OF STREAM: Nearly level.

ESTIMATED QUANTITIES (89TH BRIDGES)

Excavation for Structures (Bridges)	1092 Cu. Yds.
Mechanical Tamping	24 Hrs.
Class "A" Concrete Bridge Superstructure	733.42 Cu. Yds.
Class "A" Concrete Bridge Substructure	816.68 Cu. Yds.
Reinforcement for Concrete Structures	154,900 Lbs. 155,562 Lbs.
Structural Steel	744,440 Lbs. 750,492 Lbs.
Metal Bridge Railing, Steel	7766 Lbs. 7766 Lbs.
Structural Steel Piles in place	1213.31596 Lbs. 1213.31596 Lbs.
Excavation for Riprap	100 Cu. Yds.
Wire Encased Riprap	300 Cu. Yds.
Wire Fencing for Riprap	6245 Lbs.
Steel Stakes	140155 Lbs.

Payment for field splices for Structural Steel Piles, as defined in the specifications, and for Structural Steel Pile cut-offs will be made at unit prices stipulated in the Proposal Schedule, Items 97c and 97k. Payment for pre-bored or pre-driven Pile holes will be made at the unit prices stipulated in the Proposal Schedule, Item 97f. See Exhibit No. 116-4-1.

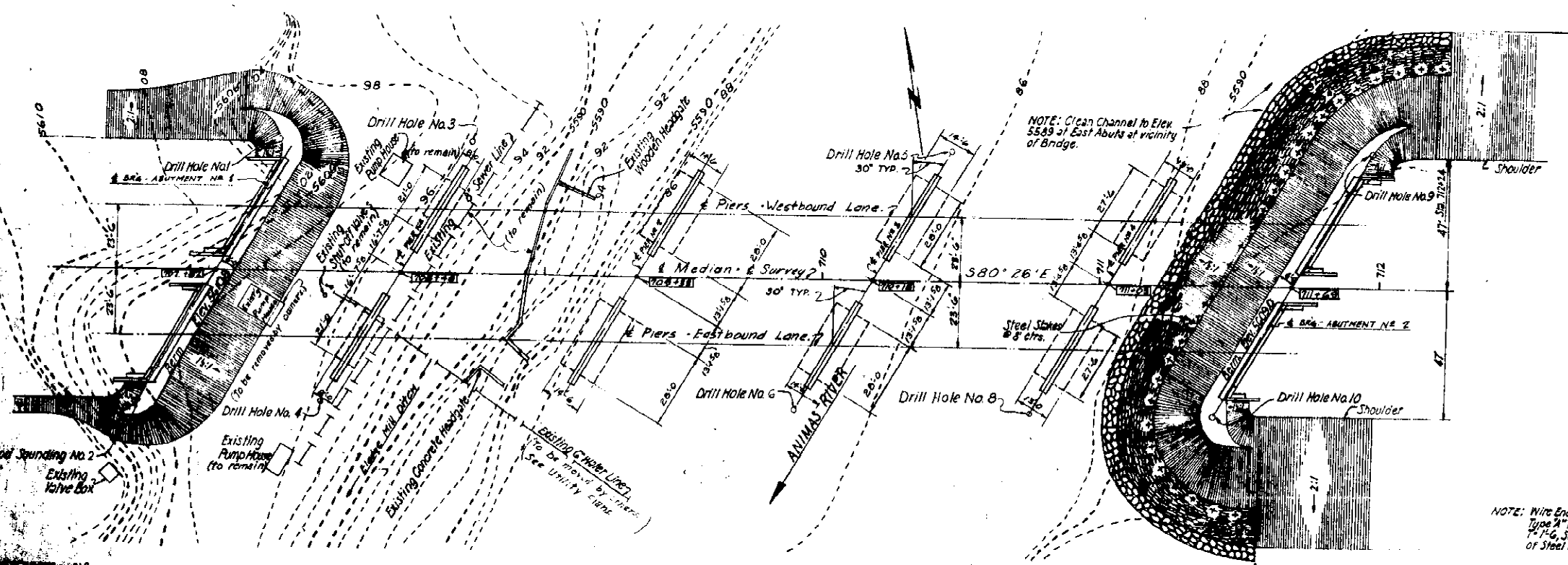
BRIDGE OVER ANIMAS RIVER

NEW MEXICO
STATE HIGHWAY DEPARTMENT
NOTES AND QUANTITIES
BRIDGE OVER ANIMAS RIVER
U.S. HIGHWAY NO. 550
NEAR AZTEC, N.M.

STA. 709+75.5
N.M.P.F. 032-1(G)

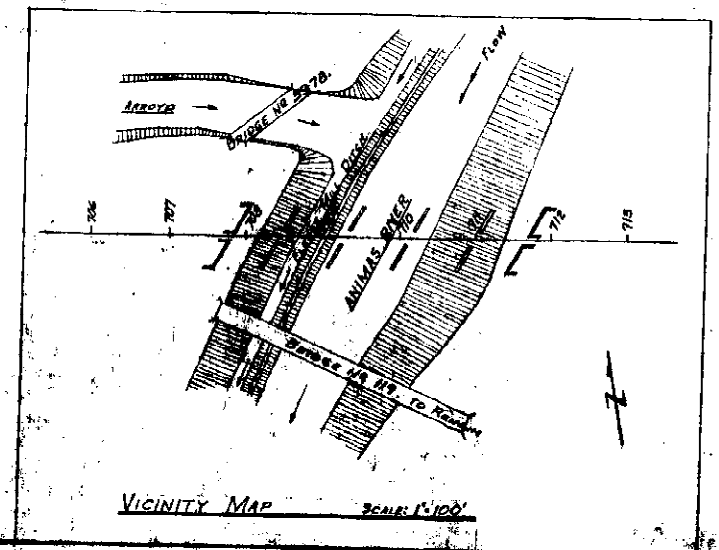
SHEET 11
DRWG.

APPROVED: *[Signature]*
BRIDGE ENGINEER



PLAN
SCALE: 1" = 20'

For elevations of bottoms of abutment caps and pier footings see Sheet A-3, Draw. T09-1.
For curbing and channelization adjoining both ends of bridge see Sheets 6 and 14.

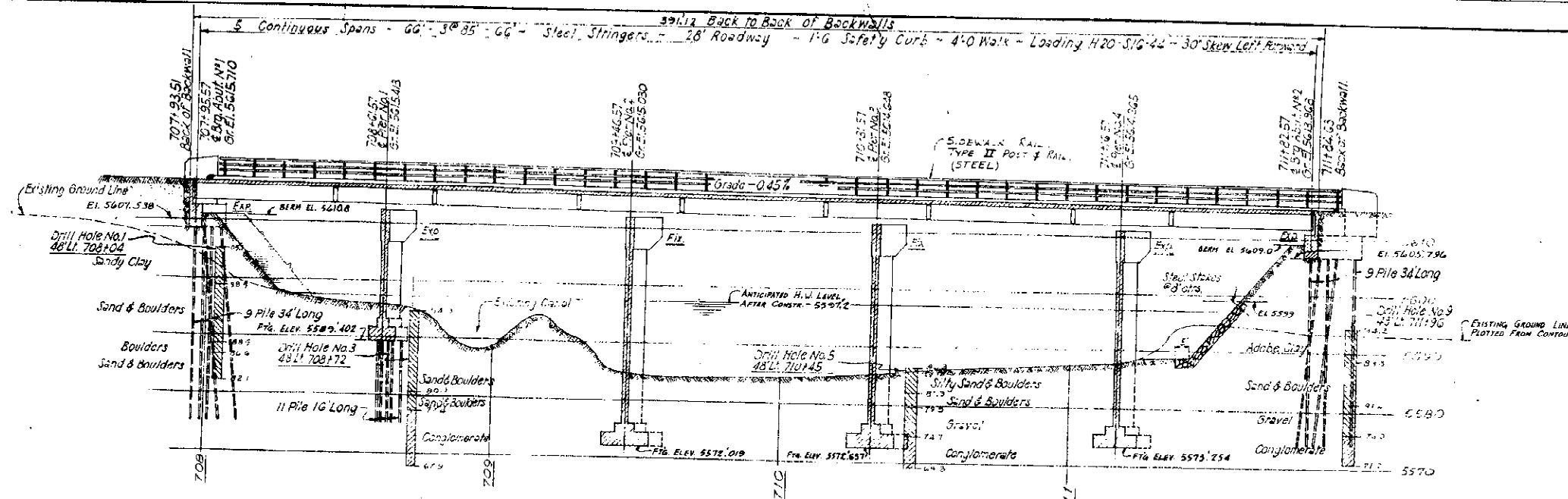


M. L. BURROUGHS ENGINEERING CO.
136 JACKSON STREET N.E.
ALBUQUERQUE, NEW MEXICO

NEW MEXICO
STATE HIGHWAY DEPARTMENT
STRUCTURE LOCATION SHEET
BRIDGE OVER ANIMAS RIVER
U.S. HIGHWAY NO. 550
NEAR AZTEC, N.M.

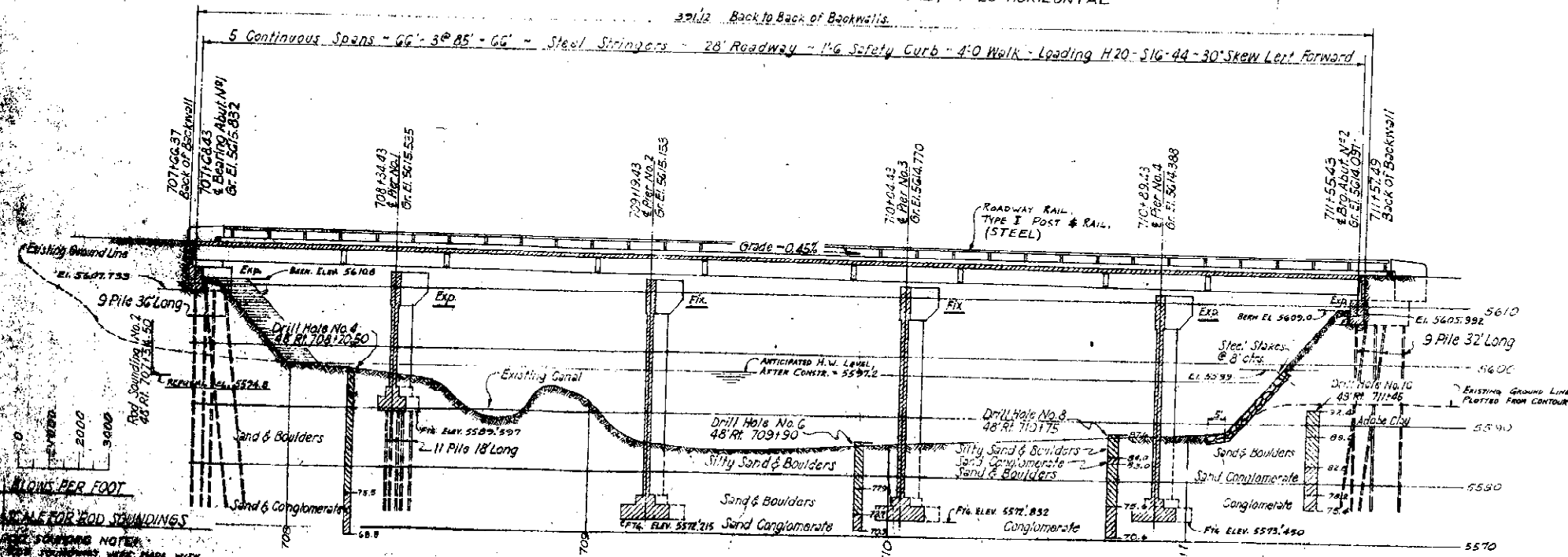
STA 709+75.5
N.M.R. F-032-1(G)
APPROVED: [Signature]
DATE: [Date]

STATE	FISCAL YEAR	SHEET NO.	SHEET TOTAL
N.M.	1932-1933	57	62



PROFILE ON & PIERS WESTBOUND LANES LOOKING UPSTREAM
SCALE: 1"=10' VERTICAL, 1"=20' HORIZONTAL

NOTE: All Piles to be 108 P57
Steel Bearing Piles. Order
Lengths shown on Profile.



PROFILE ON & PIERS EASTBOUND LANES LOOKING UPSTREAM
SCALE: 1"=10' VERTICAL, 1"=20' HORIZONTAL

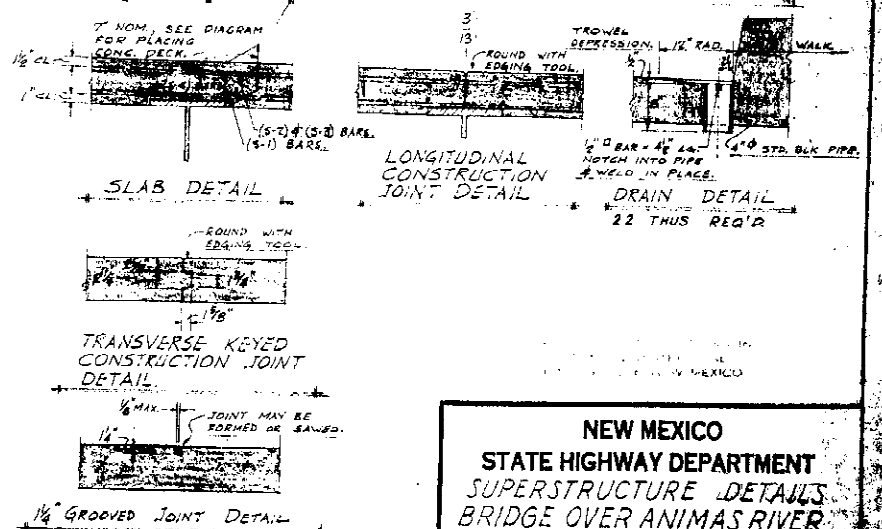
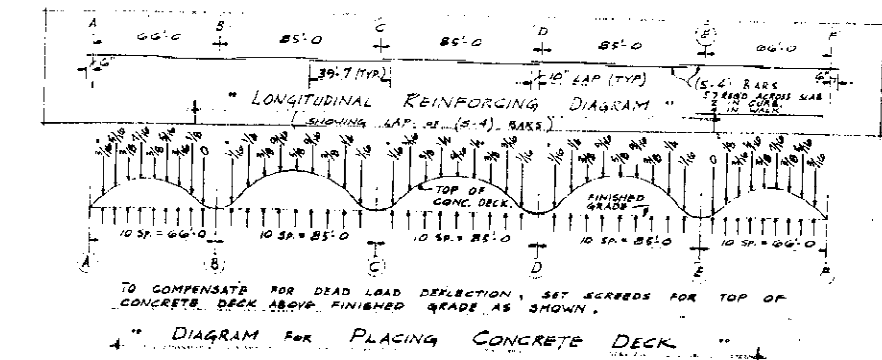
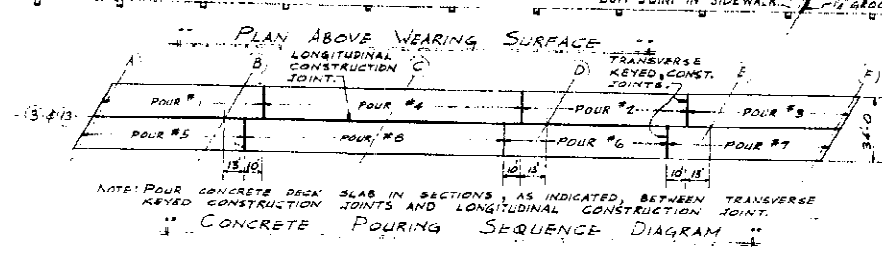
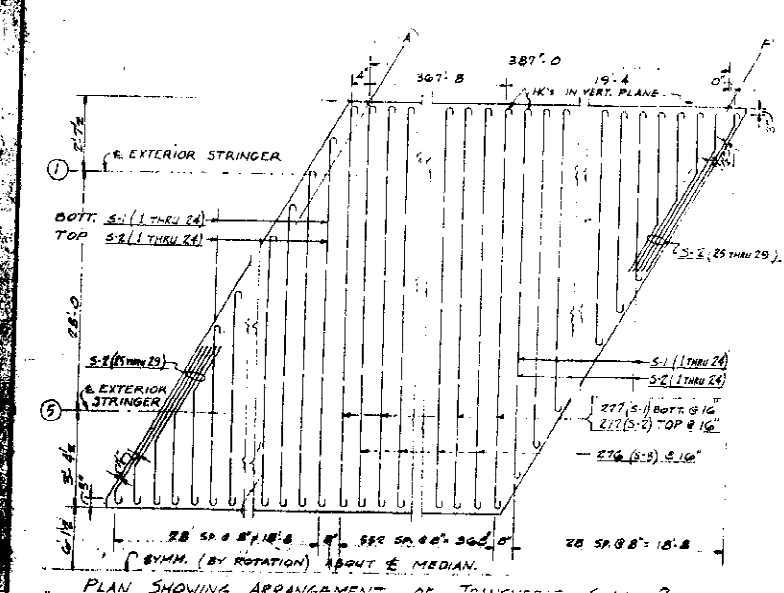
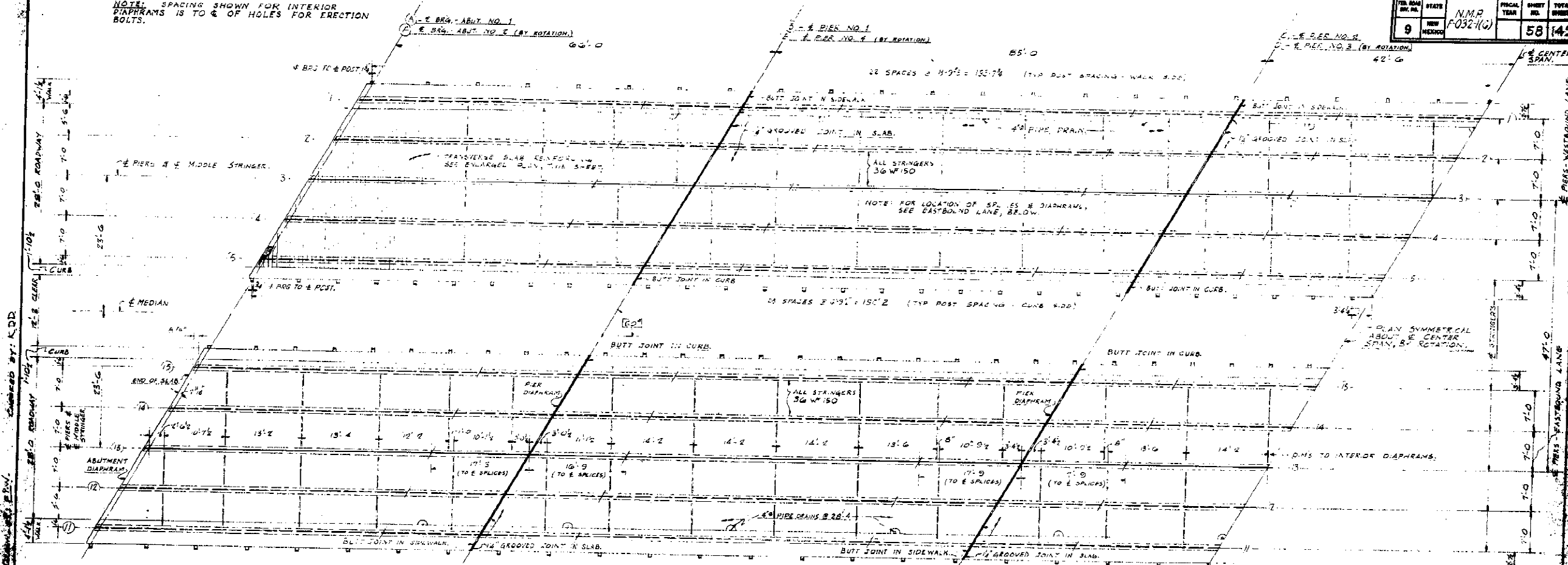
NOTES: Grade Elevations noted on Profile
are top of concrete slab at & of
Piers. See Sheet A-2 for & of Pier
Layout.
Footings for Piers No. 2, 3 and 4 E.B.
and No. 3, 4 W.B. Lanes are to be founded
1.5 min. into conglomerate. Excavate
such material to nest lines.
Profile grade of bridges 23'4" from
& Median is 0.35' higher than
adjoining roadway profile grade.
41'0" from & Median.

NEW MEXICO
STATE HIGHWAY DEPARTMENT
STRUCTURE LOCATION SHEET
BRIDGE OVER ANIMAS RIVER
U.S. HIGHWAY No. 550
NEAR AZTEC, N.M.

STA 709+75.5
N.M.B.F-032-1(G)
APPROVED: [Signature]
DRAWN: [Signature]

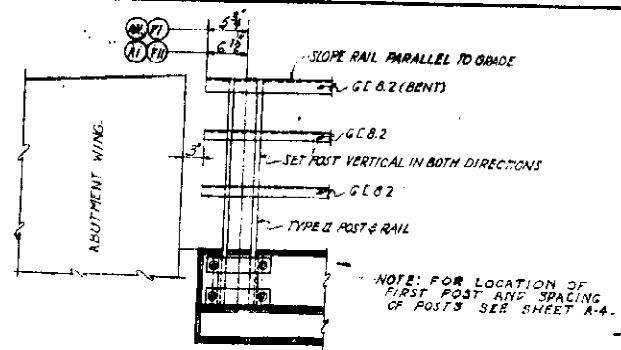
NOTE: SPACING SHOWN FOR INTERIOR DIAPHRAGMS IS TO 1/4 OF HOLES FOR ERECTION BOLTS.

NO.	STATE	N.M.P.	PIECES	SHEET	TOTAL
9	NEW MEXICO	F032-1(G)		58	142

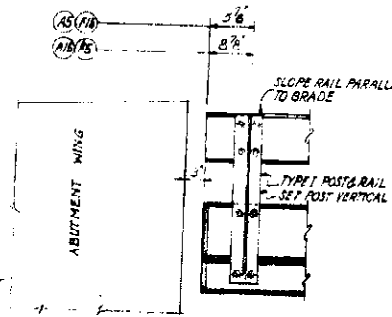


NEW MEXICO
STATE HIGHWAY DEPARTMENT
SUPERSTRUCTURE DETAILS
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER SPANS
66'-3\"/>

WOOD & DELAPP
CONSULTING ENGINEERS



END POST DETAIL - SIDEWALK HANDRAIL
FOR DETAILS NOT SHOWN SEE SERIAL BR-1-59



END POST DETAIL - CURB GUARD RAIL
FOR DETAILS NOT SHOWN SEE SERIAL BR-1-59

SLAB REINFORCING SCHEDULE (FOR 1 BRIDGE)

MARK	SIZE	NO. REBAR	LENGTH	BAR BENDING (# REMARKS)	WEIGHT
S-1 (1)	#5	197	30'-0"	STR. (43) INCREMENTS BY 1/16"	
S-1 (2)	#5	2	5'-0"	(CUT BARS TO 1" LENGTHS ADDING FOR 1/2" OR MORE - TIP THROUGH SCHED)	
S-2 (1)	#5	277	34'-0"	(23) INCREMENTS BY 1/16"	31,085
S-2 (2)	#5	2	7'-0"		
S-2 (3)	#5	2	34'-1"		
S-3 (1)	#5	2	7'-1"		
S-3 (2)	#5	2	6'-7"		
S-4	#5	80	30'-6"	(1) INCREMENTS BY 1/16"	
S-5	#5	276	35'-10"	(15) INCREMENTS BY 1/16"	
S-6	#5	570	39'-7"	STR.	
S-7	#5	292	6'-2"	STR.	17,754
S-8	#5	292	3'-8"	STR.	
S-9	#5	292	3'-11"	STR.	
TOTAL =					48,939
					2,846.65
					97,678

DESIGN DATA:
DESIGN IN ACCORDANCE WITH AASHTO SPEC'S 1957
DESIGN STRESSES: STEEL $f_s = 18,000 \text{ psi}$
CONCRETE $R = 1000 \text{ psi}$; $f_c = 20,000 \text{ psi}$; $n = 12$
ALLOWANCE FOR FUTURE WEARING SURFACE: 15%
LIVE LOAD: HS-20-SIG-44

ESTIMATED SUPERSTRUCTURE QUANTITIES (FOR 1 BRIDGE)

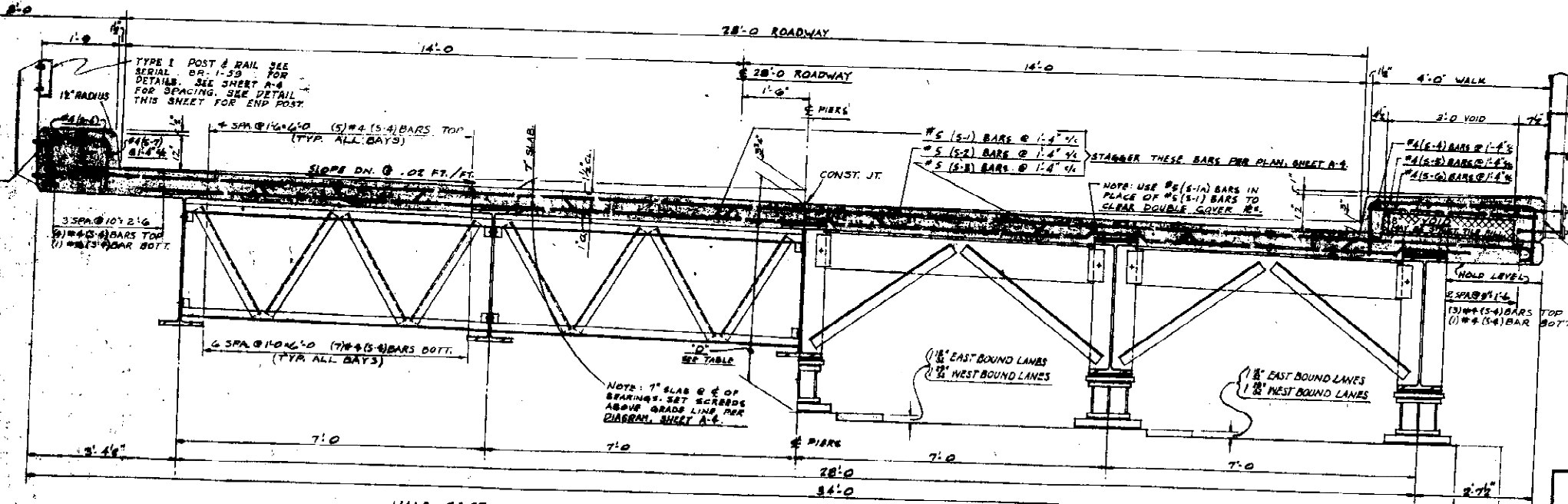
CLASS 'A' CONCRETE BRIDGE SUPERSTRUCTURE	QUANTITY
REINFORCEMENT FOR CONCRETE STRUCTURES	36.7
METAL BRIDGE RAILING - STEEL	4,838
STRUCTURAL STEEL:	
STRINGERS & SPLICES	348,124
DIAPHRAGMS & STIFFENERS	27,988
BEARINGS	4,756
EXPANSION DEVICES & SUMMER R'S	3,439
TOTAL	407,235

TOP OF CONCRETE SLAB AT & STRINGERS TO BRIDGE

ABUT. NO. 1 & NO. 2	PIER NO. 1 & NO. 2	PIER NO. 3 & NO. 4
SLAB @ & STRINGER	7'-8"	7'-8"
STRINGER LESS FLANGE	2'-10 1/4"	2'-10 1/4"
COVER @ (BOTTOM)	1 1/2"	1 1/2"
SOLE @	1 1/2"	1 1/2"
BEARING BAR OR ROCKER	1 1/2"	10"
MASONRY @	1"	1 1/2"
SHEET LEAD	6"	6"
TOTAL	3'-10 1/4"	4'-8 1/4"

SYMMETRICAL ABOUT & MEDIAN.

NOTE: #5(3-7) & #4(5-5) BARS MAY BE PLACED IMMEDIATELY AFTER SLAB FINISHING OPERATIONS ARE COMPLETED AND BEFORE CONCRETE HAS ATTAINED INITIAL SET.



HALF SECTION NEAR MID-SPAN

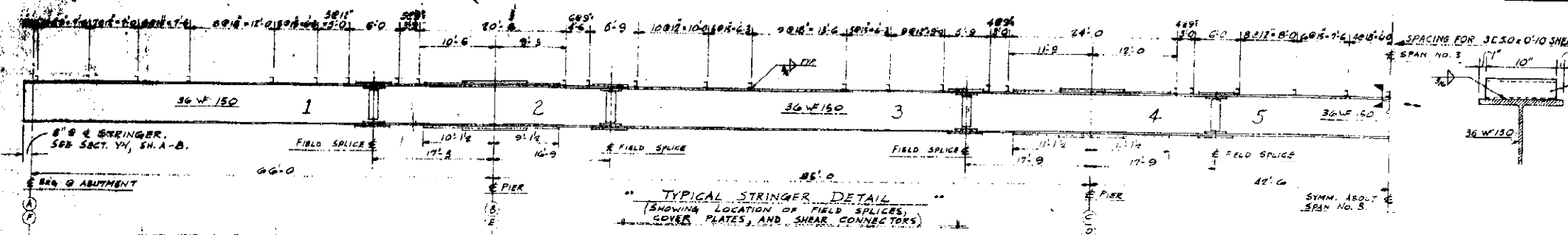
HALF SECTION NEAR PIER

" TYPICAL CROSS SECTION - SUPERSTRUCTURE -"
THRU EASTBOUND LANES - LOOKING EAST
THRU WESTBOUND LANES - LOOKING WEST

DIMENSIONS
ABUT. NO. 1 & NO. 2
PIER NO. 1 & NO. 2
PIER NO. 3 & NO. 4

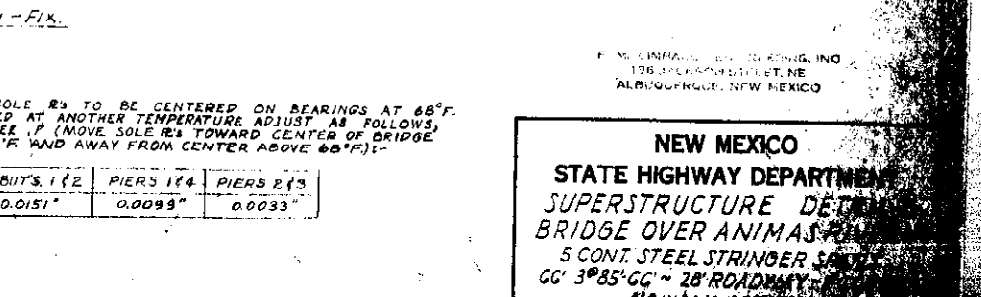
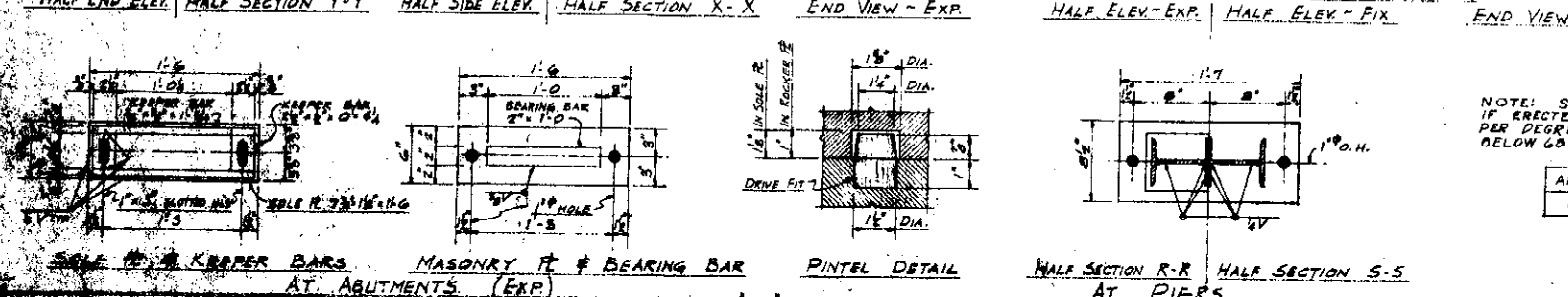
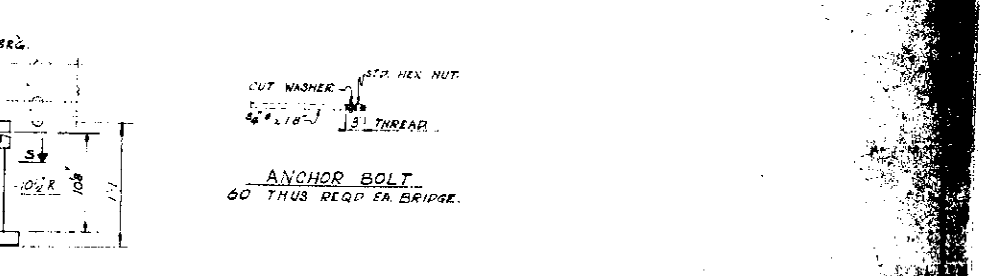
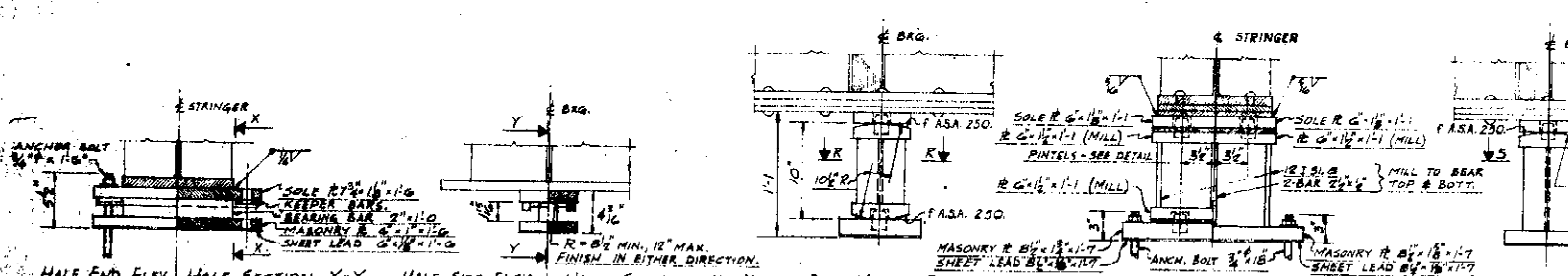
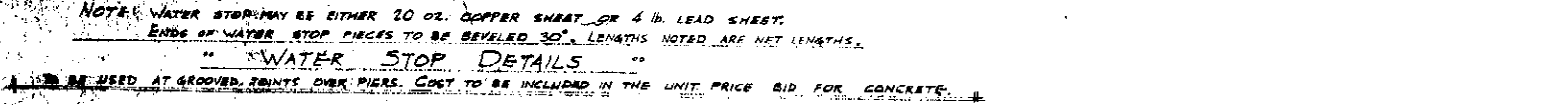
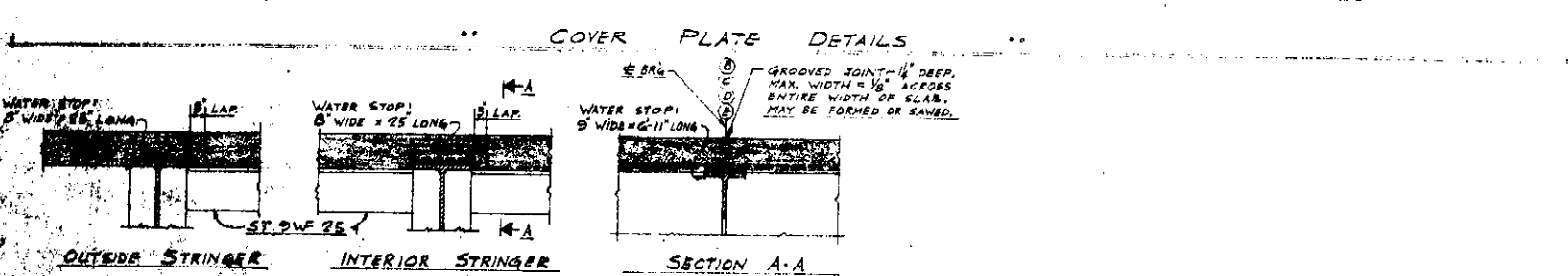
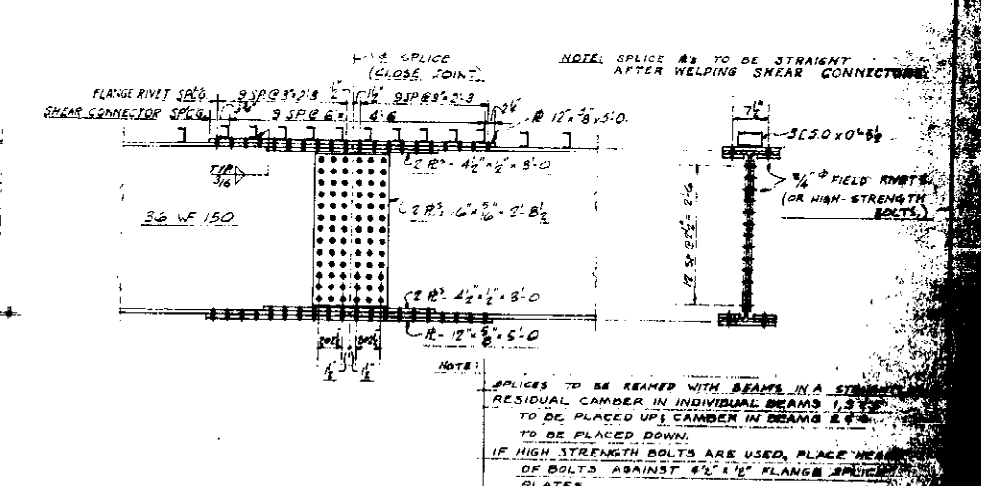
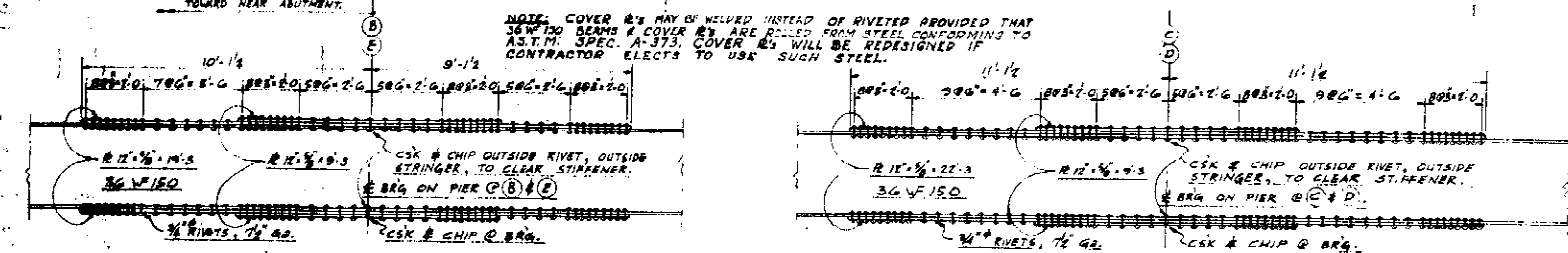
F. M. LIMB, UGH & SONS, INC.
100 JACKSON STREET, N.E.
ALBUQUERQUE, N.M. 87102

NEW MEXICO
STATE HIGHWAY DEPARTMENT
SUPERSTRUCTURE DETAIL
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER
GC-3" 85" CC - 28' ROADWAY - 14' LANE
4' WALK - 3' VOID
STA. 709+75.5
N.M.P. # 032-11(G)
APPROVED: [Signature]



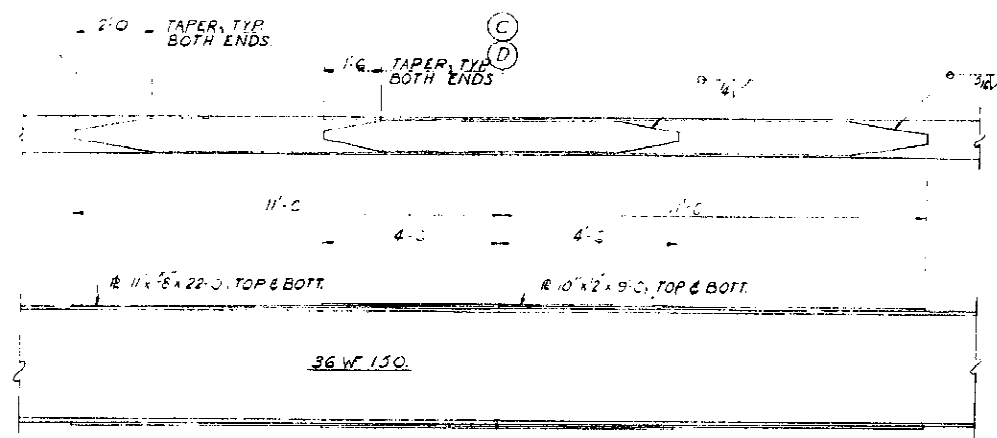
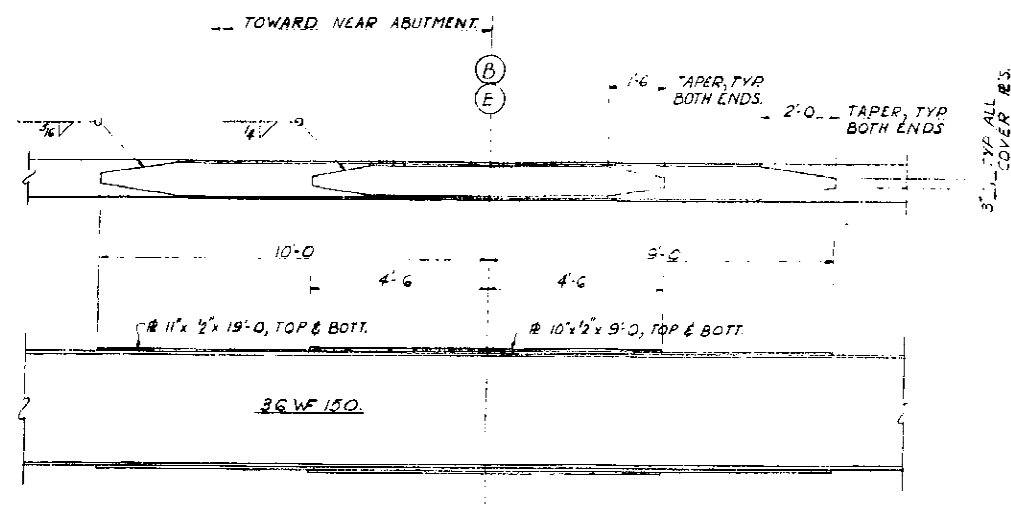
DATE	DESIGN	BY	DATE	DESIGN	BY
9/1/58	N.M.P.	F032-1(G)	9/1/58	N.M.P.	F032-1(G)

NOTES:
IF CONTRACTOR ELECTS TO USE STOP TYPE SHEAR CONNECTORS IN CHANNEL TYPE WELDED JOINTS, DETAILS & SPACING WILL BE PROVIDED. PAYMENT WILL BE BASED ON CONNECTOR TYPE USED.



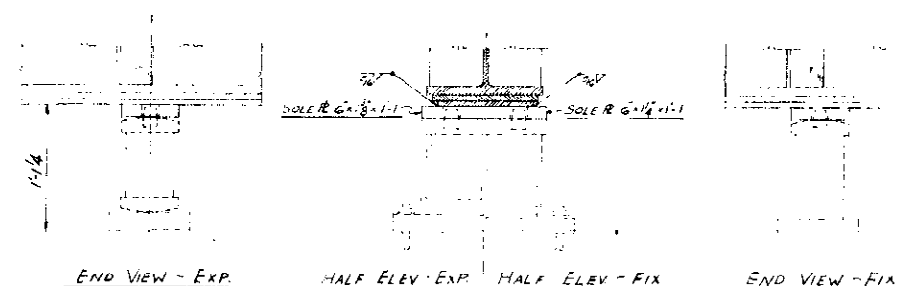
NEW MEXICO
STATE HIGHWAY DEPARTMENT
SUPERSTRUCTURE DETAIL
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER BRIDGE
CG 3° 85' 00" 28' ROADWAY
4' 0" WALK-30' SIDEWALK
STA. 709+75.5
N.M.P.F-032-1(G)
APPROVED: [Signature]
BRIDGE ENGINEER

FED. ROAD DIST. NO.	STATE	N.M.P. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	NEW MEXICO	FO32-1(G)		60A	



COVER PLATE DETAILS

WELDED DESIGN - TO BE USED WITH STEEL CONFORMING TO ASTM SPECIFICATION A-373.



BEARING DETAILS AT PIERS

SHOWING ADJUSTED SOLE PLATE THICKNESS FOR WELDED COVER PLATES.

F. M. LIMBAUGH ENGINEERING

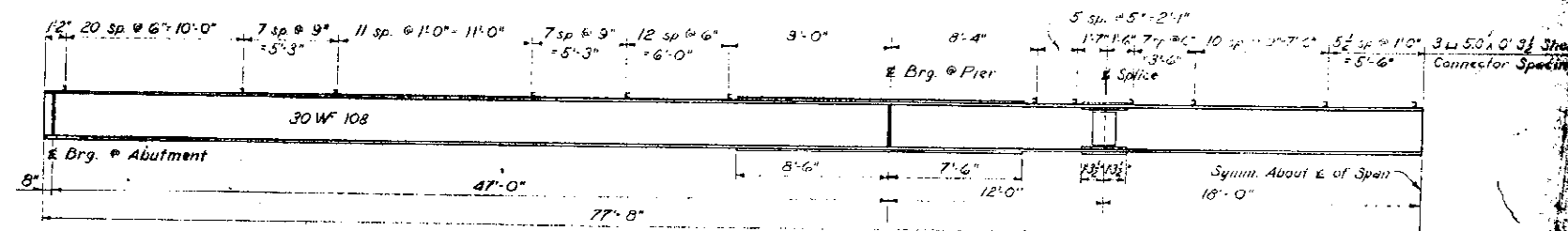
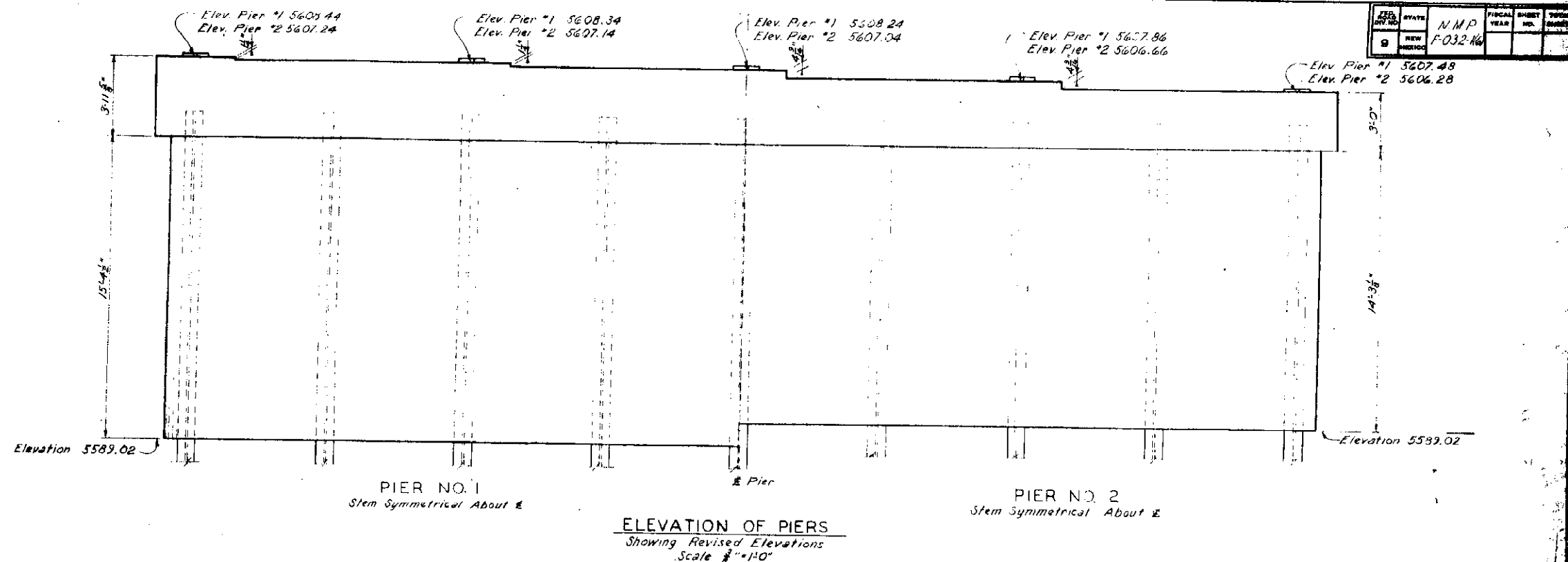
COVER PLATE ALTERNATE - WELDED DESIGN FOR STEEL CONFORMING TO ASTM SPEC. A-373.

NEW MEXICO
STATE HIGHWAY DEPARTMENT
SUPERSTRUCTURE DETAILS
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER SPANS
GG' 3° 85' GG' ~ 28' ROADWAY ~ 1' CURB
~ 4' WALK ~ 30' SKEW L.F.

STA 709+75.5
N.M.P.F-032-1(G)

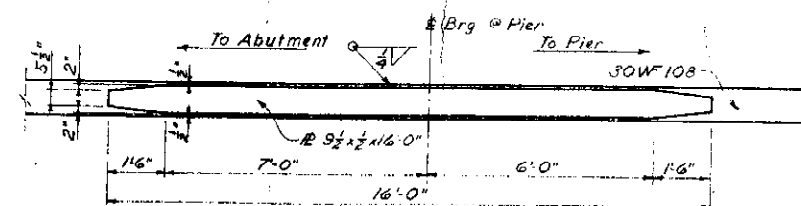
SHEET A-6A
DRWG 709-2

APPROVED: [Signature] DATE: 8-30-60



- NOTES
1. Stringers and cover plates shall be rolled from steel conforming to A.S.T.M Specification A-373.
 2. Fabricate stringers with residual camber up.
 3. For details of stiffeners over piers, see Details of Diaphragms at Piers, Sheet 3 of 6, Drwg. 708-2.

SPACING FOR SHEAR CONNECTORS SPLICES AND COVER PLATES
Scale $\frac{1}{2}'' = 1'-0''$



No.	DESCRIPTION	DATE
1	REVISIONS OR CHANGE NOTICES	
2		
3		
4		
5		
6		

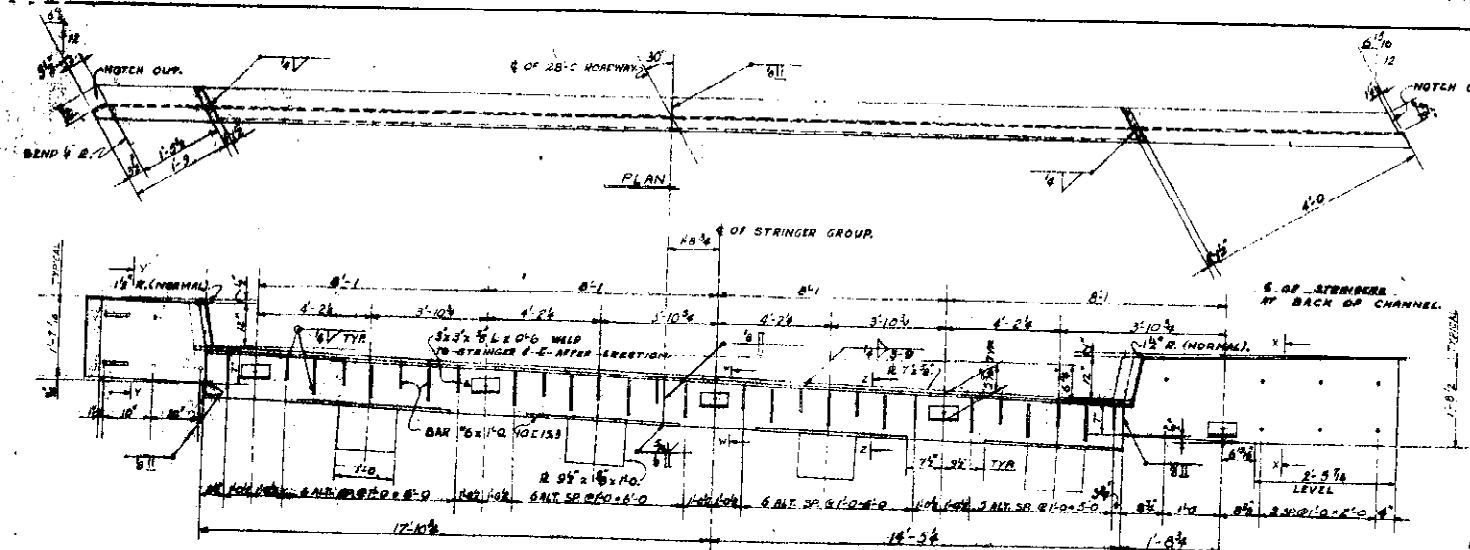
F. M. LIMBAUGH ENGINEERING, INC.
112 JACKSON STREET, N.E.
ALBUQUERQUE, NEW MEXICO

NEW MEXICO
STATE HIGHWAY DEPARTMENT
REVISIONS FOR WELDED
COVER PLATES

AZTEC ARROYO BRIDGE
CONTINUOUS STEEL STRINGERS
3 SPANS 47'-0" 60'-0" 47'-0"
28' ROADWAY 44 1/2" SIDEWALK
60° SKEW R.T.
STA. 5+79.36
NMP F-032-1.6 SUPPLEMENT

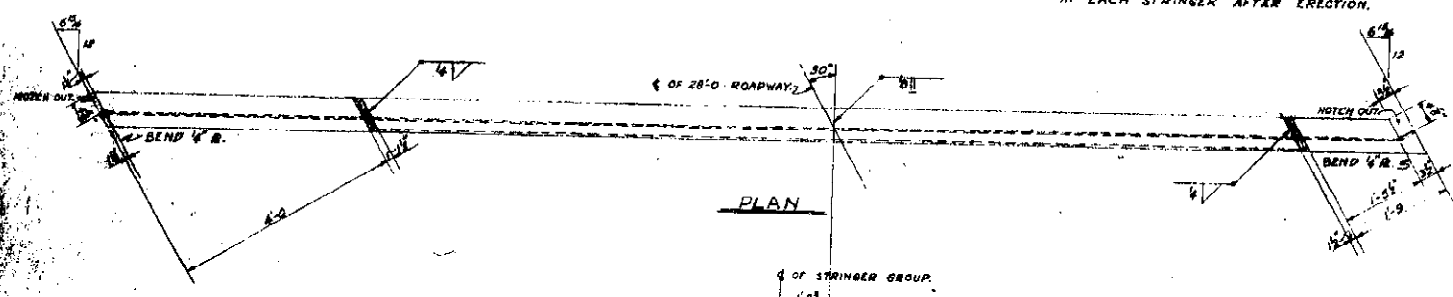
Approved: *Chas. R. R. R.*
Bridge Engineer

CED.	STATE	N.M.P.	FISCAL YEAR	PROJECT NO.	TOTAL
9	NEW MEXICO	F032-1(G)	61	142	

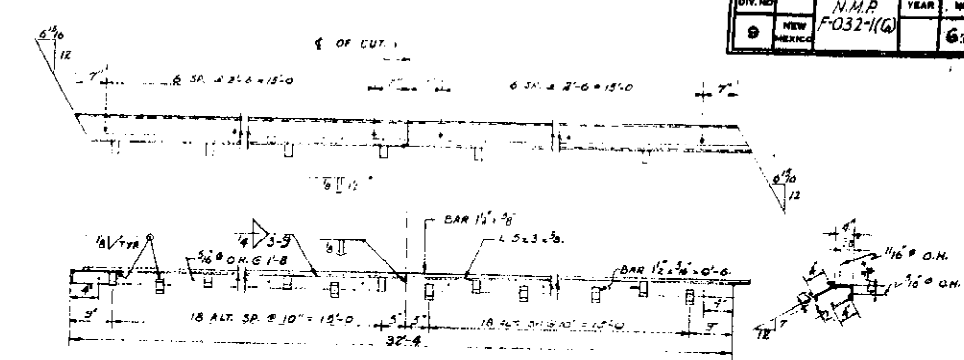


DETAIL A
AT ABUTMENT NO. 1 WESTBOUND LANE
AT ABUTMENT NO. 2 EASTBOUND LANE
REQD: 1 OF EACH

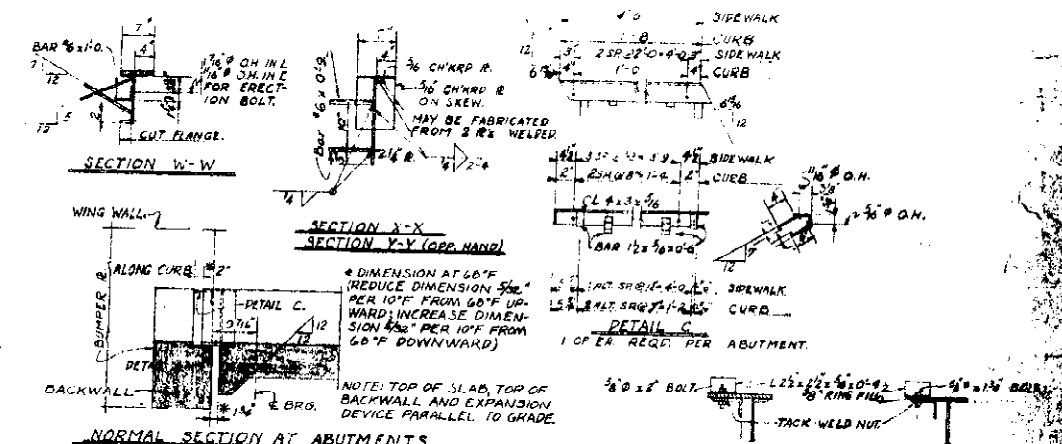
NOTE: FURNISH 5 BARS $\frac{1}{2}$ " ϕ 1'-0" FOR EACH DETAIL B TO BE FIELD WELDED TO DETAIL AND TO TOP OF STRINGER AT EACH STRINGER AFTER ERECTION.



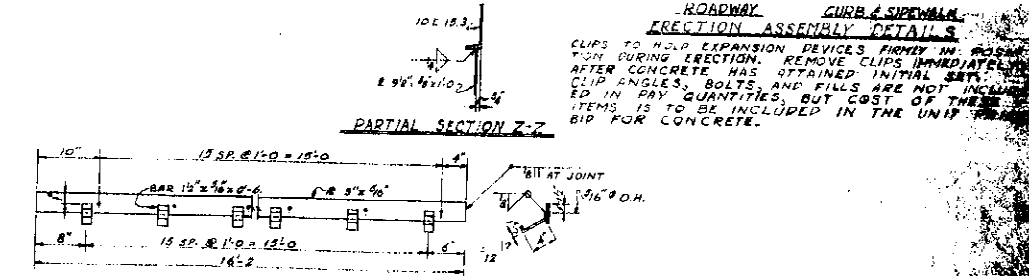
DETAIL B
AT ABUTMENT NO. 2 WESTBOUND LANE
AT ABUTMENT NO. 1 EASTBOUND LANE
REQD: 1 OF EACH



DETAIL A
4 REQD.



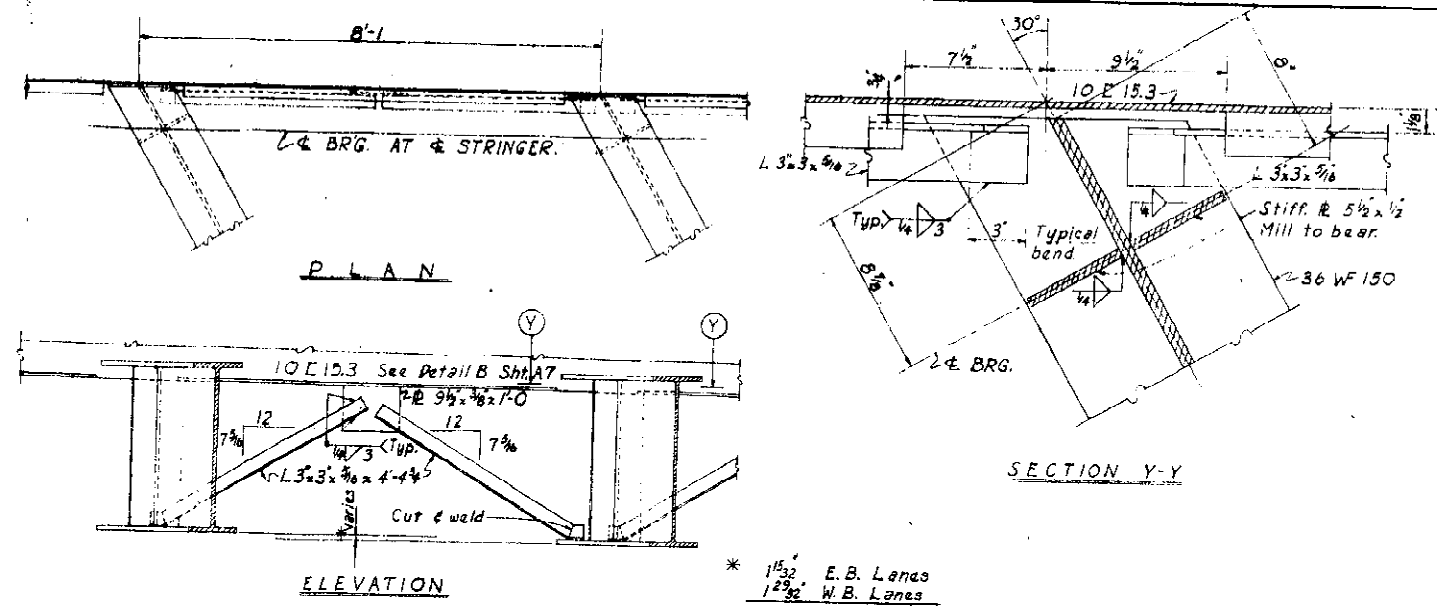
NORMAL SECTION AT ABUTMENTS



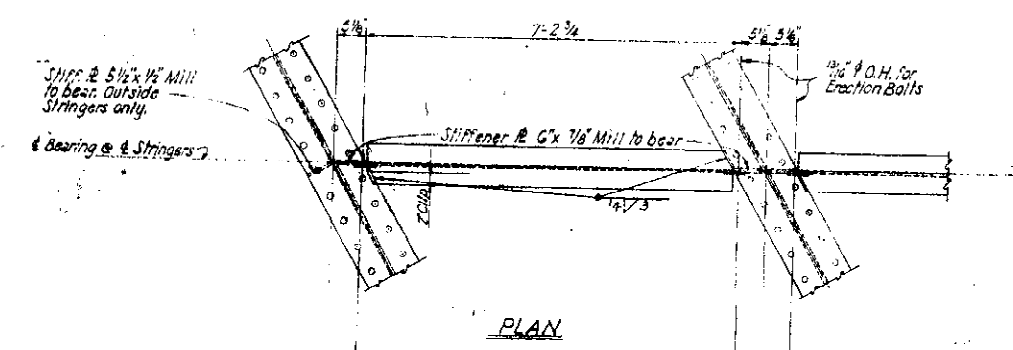
BUMPER PLATE DETAIL
REQD: 1 AS SHOWN & 1 OPP. HAND PER ABUT.

ALBION BRIDGE CO., INC.
10800 N. 11TH ST., N.E.
ALBUQUERQUE, NEW MEXICO

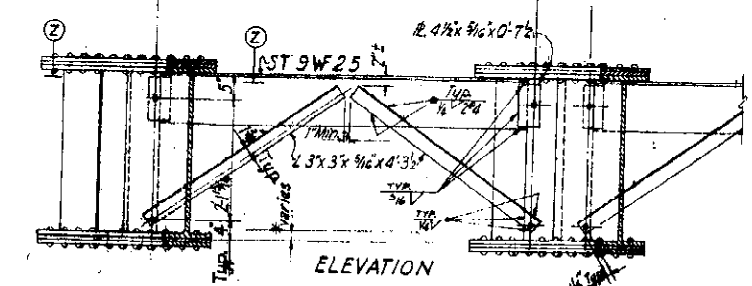
NEW MEXICO
STATE HIGHWAY DEPARTMENT
SUPERSTRUCTURE DETAIL
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER SPANS
66'-3" 85'-66" - 28' ROADWAY
4'-0" WALK-30" SIDEWALK
STA. 709+75.5
N.M.P. F032-1(G)
APPROVED: [Signature]
BRIDGE ENGINEER



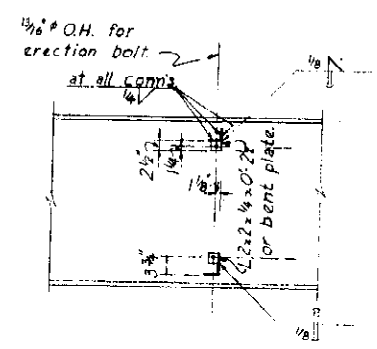
ABUTMENT DIAPHRAGM



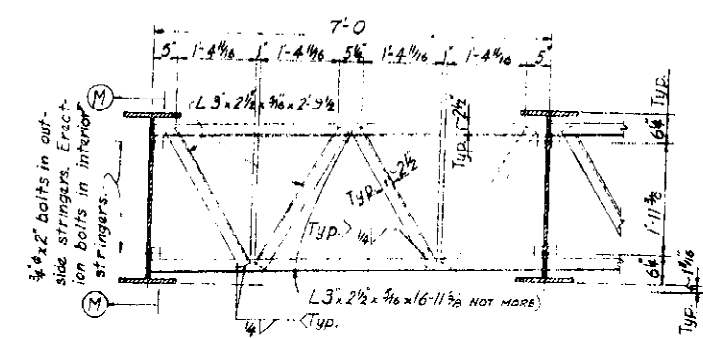
PLAN



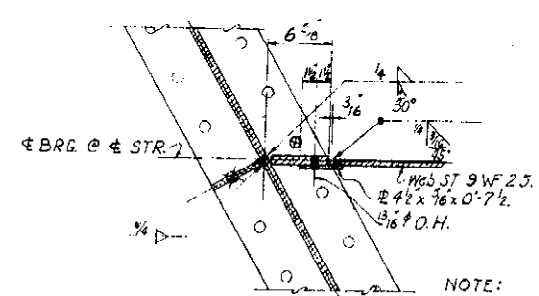
PIER DIAPHRAGM



SECTION M-M



INTERIOR DIAPHRAGM



SECTION V Z-Z

NOTE:
Erection bolts are not included in structural steel quantity. After field connections are welded they may be removed or not at contractors option.
* * * 2" bolts in outside stringer at interior diaphragms are to remain in place after field connections are welded and weight is included in structural steel quantity.

NEW MEXICO
STATE HIGHWAY DEPARTMENT
SUPERSTRUCTURE DETAILS
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER SPANS
66'-3" 85'-6" ~ 28' ROADWAY ~ HIGGINS
- 4' WALK - 30' SIDE L.F.
STA. 709+75.5
N.M.P.F.-Q32-1(C)
SHEET A-1
DRAWN
APPROVED: *[Signature]*
BRIDGE ENGINEER

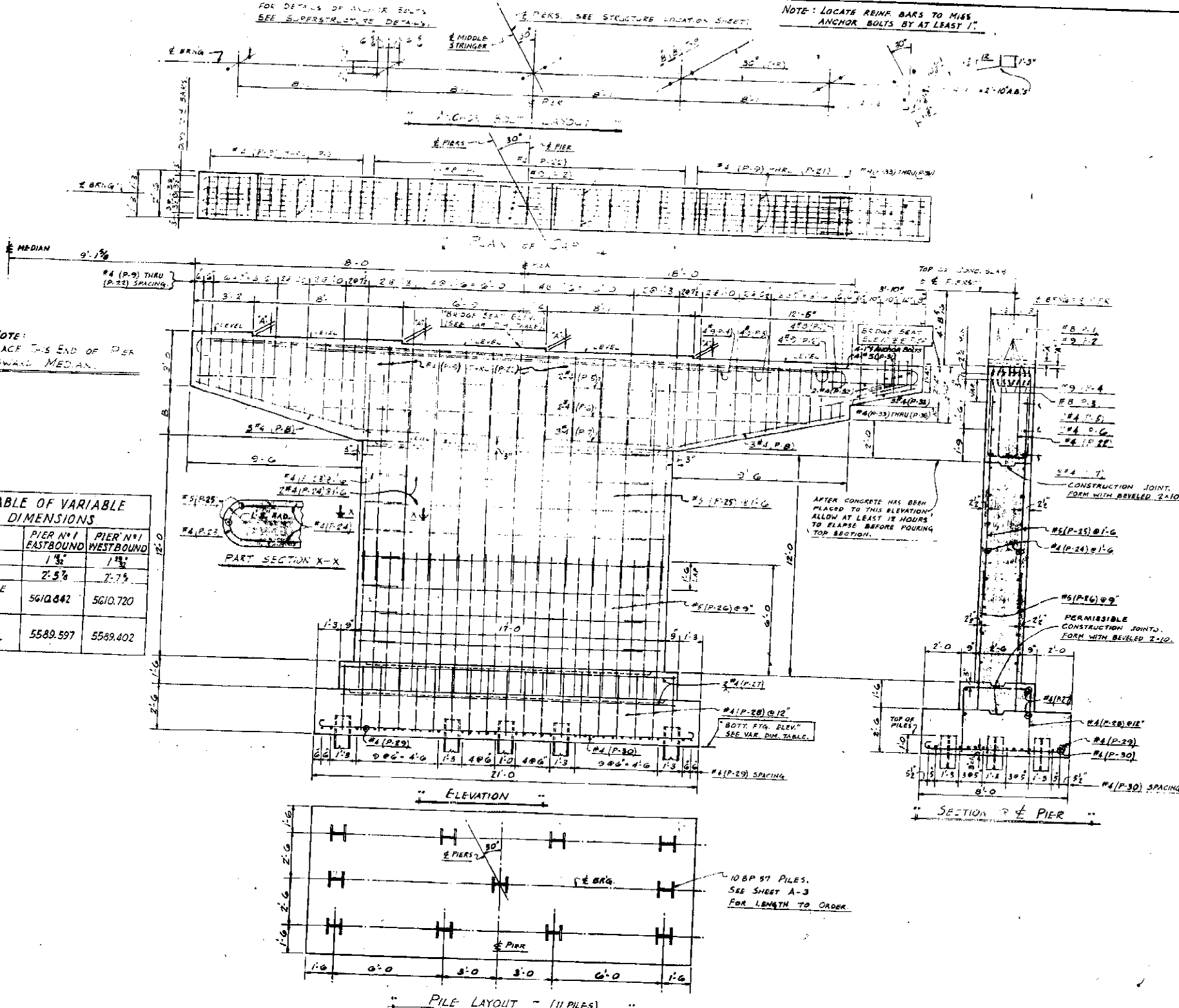
WOOD & DELAPP
CONSULTING ENGINEERS
SANTA FE, N.M.

CHECKED BY: E.D.D.

DESIGNED BY: E.D.W.

TABLE OF VARIABLE DIMENSIONS		
	PIER NO. 1 EASTBOUND	PIER NO. 1 WESTBOUND
A	1'-3"	1'-3"
B	2'-5"	2'-7"
BRIDGE SEAT ELEV.	5610.842	5610.720
BOFF. FTG. ELEV.	5589.597	5589.402

NOTE:
PLACE THIS END OF PIER
TOWARD MEDIAN.



PIER NO.	STATE	FISCAL YEAR	PIER NO.	TOTAL PILES
9	N.M.	F0321(G)	63	149

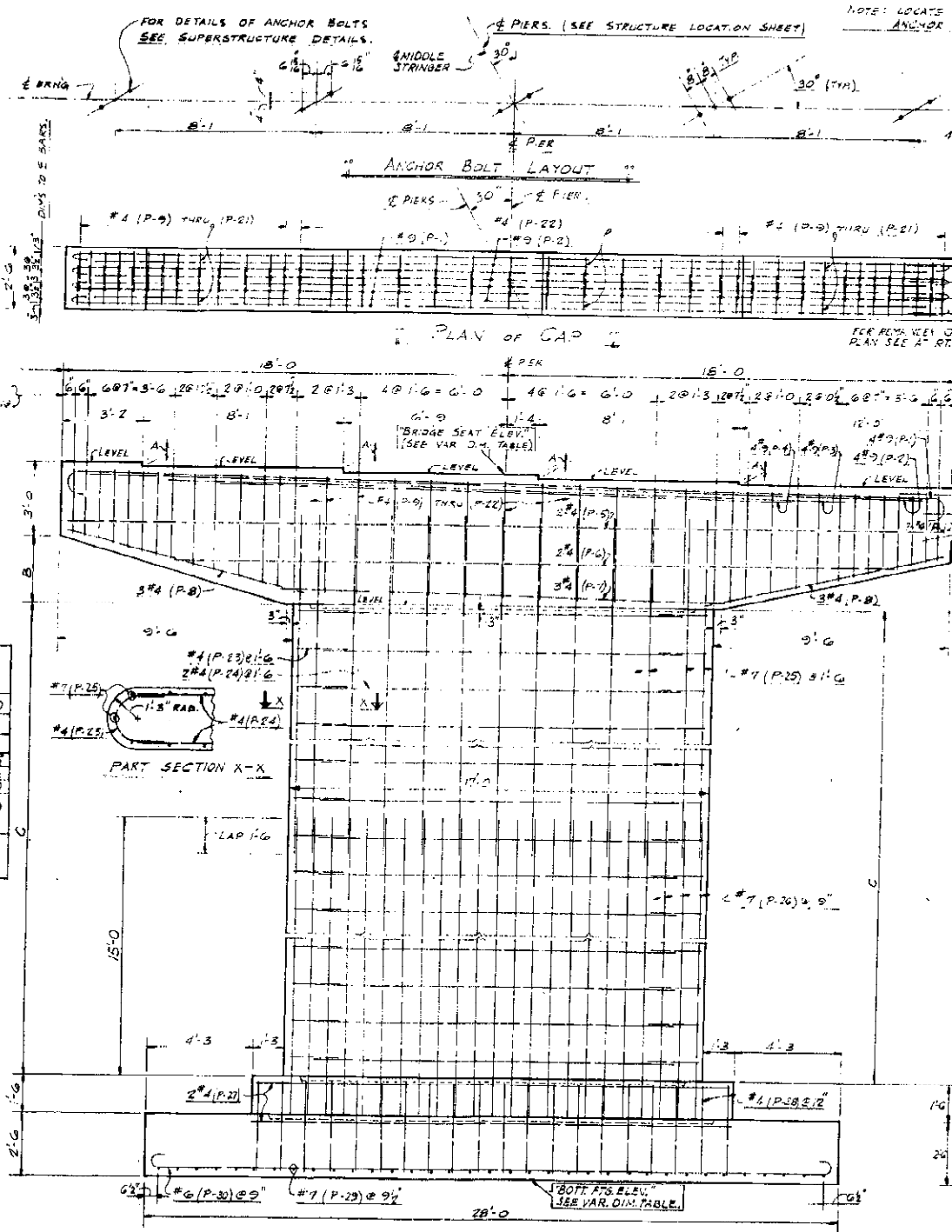
PIER REINFORCING SCHEDULE						
PIER	SIZE	NUMBER REQ'D	LENGTH	BAR BENDING	WEIGHT	
				(L.M.S. R.T.S. A.)	Lbs.	
P-1	#8	4	2'-10"	C-41-2-10	800	
P-2	#8	4	2'-5"	STR.	952	
P-3	#8	4	2'-5"	STR.	952	
P-4	#8	4	2'-5"	STR.	952	
P-5	#8	2	2'-5"	STR.	653	
P-6	#8	2	2'-5"	STR.	653	
P-7	#8	2	2'-5"	STR.	653	
P-8	#8	2	2'-5"	STR.	653	
P-9	#8	2	2'-5"	STR.	653	
P-10	#8	2	2'-5"	STR.	653	
P-11	#8	2	2'-5"	STR.	653	
P-12	#8	2	2'-5"	STR.	653	
P-13	#8	2	2'-5"	STR.	653	
P-14	#8	2	2'-5"	STR.	653	
P-15	#8	2	2'-5"	STR.	653	
P-16	#8	2	2'-5"	STR.	653	
P-17	#8	2	2'-5"	STR.	653	
P-18	#8	2	2'-5"	STR.	653	
P-19	#8	2	2'-5"	STR.	653	
P-20	#8	2	2'-5"	STR.	653	
P-21	#8	2	2'-5"	STR.	653	
P-22	#8	2	2'-5"	STR.	653	
P-23	#8	2	2'-5"	STR.	653	
P-24	#8	2	2'-5"	STR.	653	
P-25	#8	2	2'-5"	STR.	653	
P-26	#8	2	2'-5"	STR.	653	
P-27	#8	2	2'-5"	STR.	653	
P-28	#8	2	2'-5"	STR.	653	
P-29	#8	2	2'-5"	STR.	653	
P-30	#8	2	2'-5"	STR.	653	
P-31	#8	2	2'-5"	STR.	653	
P-32	#8	2	2'-5"	STR.	653	
P-33	#8	2	2'-5"	STR.	653	
P-34	#8	2	2'-5"	STR.	653	
P-35	#8	2	2'-5"	STR.	653	
P-36	#8	2	2'-5"	STR.	653	

NOTE: SEE SHEET A-10 FOR QUANTITIES
& DESIGN DATA.

NEW MEXICO
STATE HIGHWAY DEPARTMENT
PIER NO. 1 EASTBOUND
PIER NO. 1 WESTBOUND
BRIDGE OVER ANIMAS RIVER
5 CONT. STEEL STRINGER
66'-3" 85'-66" 28' ROADWAY 1'-6" CURB
4'-0" WALK 30' SKEW LF
STA. 709+75.5
N.M.P.F-032-1(G)
SHEET A-9
DRAWING 709

TABLE OF VARIABLE DIMENSIONS

	EASTBOUND		WESTBOUND	
	PIER N° 2	PIER N° 3	PIER N° 2	PIER N° 3
A	17.4	17.4	17.4	17.4
B	25.2	25.2	25.2	25.2
C	23.2	23.2	23.2	23.2
BRIDGE SEAT ELEV.	5610	5610	5610	5603
"BOTTOM FTG. ELEV."	460	477	337	355
	5572	5572	5572	5572
	.215	.832	.019	.037



ESTIMATED SUBSTRUCTURE QUANTITIES

ITEM	QUANTITY	UNIT	PRICE	TOTAL
CONCRETE FOR STRUCTURES	10.00	CU. YD.	1.20	12.00
MECHANICAL TAMPING	10.00	HR.	1.00	10.00
CLASS 'A' CONCRETE BRIDGE SUBSTRUCTURE	10.00	CU. YD.	1.20	12.00
REINFORCEMENT FOR CONCRETE STRUCTURES	10.00	HR.	1.00	10.00
STRUCTURAL STEEL PLATE (IN PLACE)	10.00	HR.	1.00	10.00
STRUCTURAL STEEL	10.00	HR.	1.00	10.00

PIER REINFORCING SCHEDULE

MARK	SIZE	NUMBER REQD.	LENGTH BAR BENDING (DIM. & TO #)	WEIGHT
P-1	#4	4	38'-2"	6675
P-2	#4	4	35'-0"	
P-3	#4	4	26'-0"	
P-4	#4	4	23'-0"	
P-5	#4	2	35'-8"	
P-6	#4	2	30'-0"	
P-7	#4	3	17'-6"	
P-8	#4	6	9'-9"	
P-9	#4	4	3	
P-10	#4	4	4	
P-11	#4	4	4	
P-12	#4	4	4	
P-13	#4	4	4	
P-14	#4	4	4	
P-15	#4	4	4	
P-16	#4	4	4	
P-17	#4	4	4	
P-18	#4	4	4	
P-19	#4	4	4	
P-20	#4	4	4	
P-21	#4	4	4	
P-22	#4	20	20	
P-23	#4	40	38	
P-24	#4	40	30	
P-25	#4	24	24	
P-26	#4	24	24	
P-27	#4	44	24	
P-28	#4	4	4	
P-29	#4	35	35	
P-30	#4	13	13	
P-31	#4	4	4	
P-32	#4	3	3	
P-33	#4	1	1	
P-34	#4	1	1	
P-35	#4	1	1	
P-36	#4	1	1	
TOTAL				39188

DESIGN DATA

DESIGN STRESSES: $f_c = 1000 \text{ psi}$; $f_s = 20,000 \text{ psi}$; $n = 12$.

LIVE LOAD: H20-S16-44

HORIZONTAL EARTH PRESSURE: 36 lb./sq. ft. EQUIV. FLUID PRESSURE WITH 2' SURCHARGE.

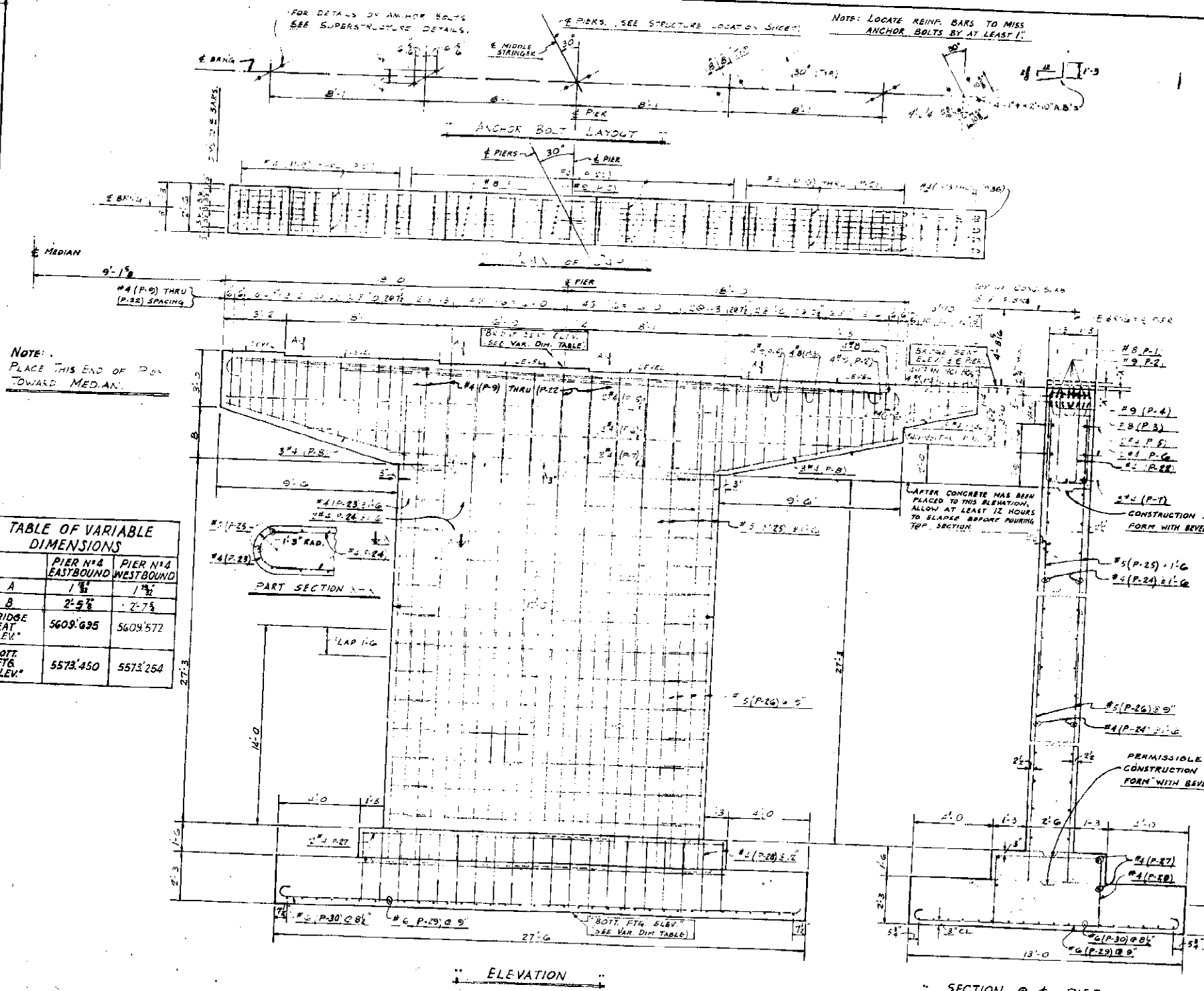
WIND VELOCITY: 80 MPH.

MAX. COMPUTED PILE LOAD: ABUTS. = 43.0 TONS. PIER N° 1 = 43.4 TONS.

MAX. COMPUTED FOOTING PRESSURES: PIERS N° 2, 3 & 4 = 2.0 TONS/SQ. FT.

Rev. Length & Weight P-9 to P-22 & P-33 to P-36: 5'-8"

NEW MEXICO
STATE HIGHWAY DEPARTMENT
PIERS N° 2 & 3 EASTBOUND
PIERS N° 2 & 3 WESTBOUND
BRIDGE OVER ANIMAS RIVER
SCOTT. STEEL STRINGER SPAN
66'-3" 65'-66" 28' ROADWAY 1' 66" 66"
-4' WALK-30' SKEW L.F.
STA. 709+75.5
N.M.P. F032-1(C)
SHEET 1 OF 1
DRAWN BY: ERY



NOTE:
PLACE THIS END OF PIER
TOWARD MEDIAN.

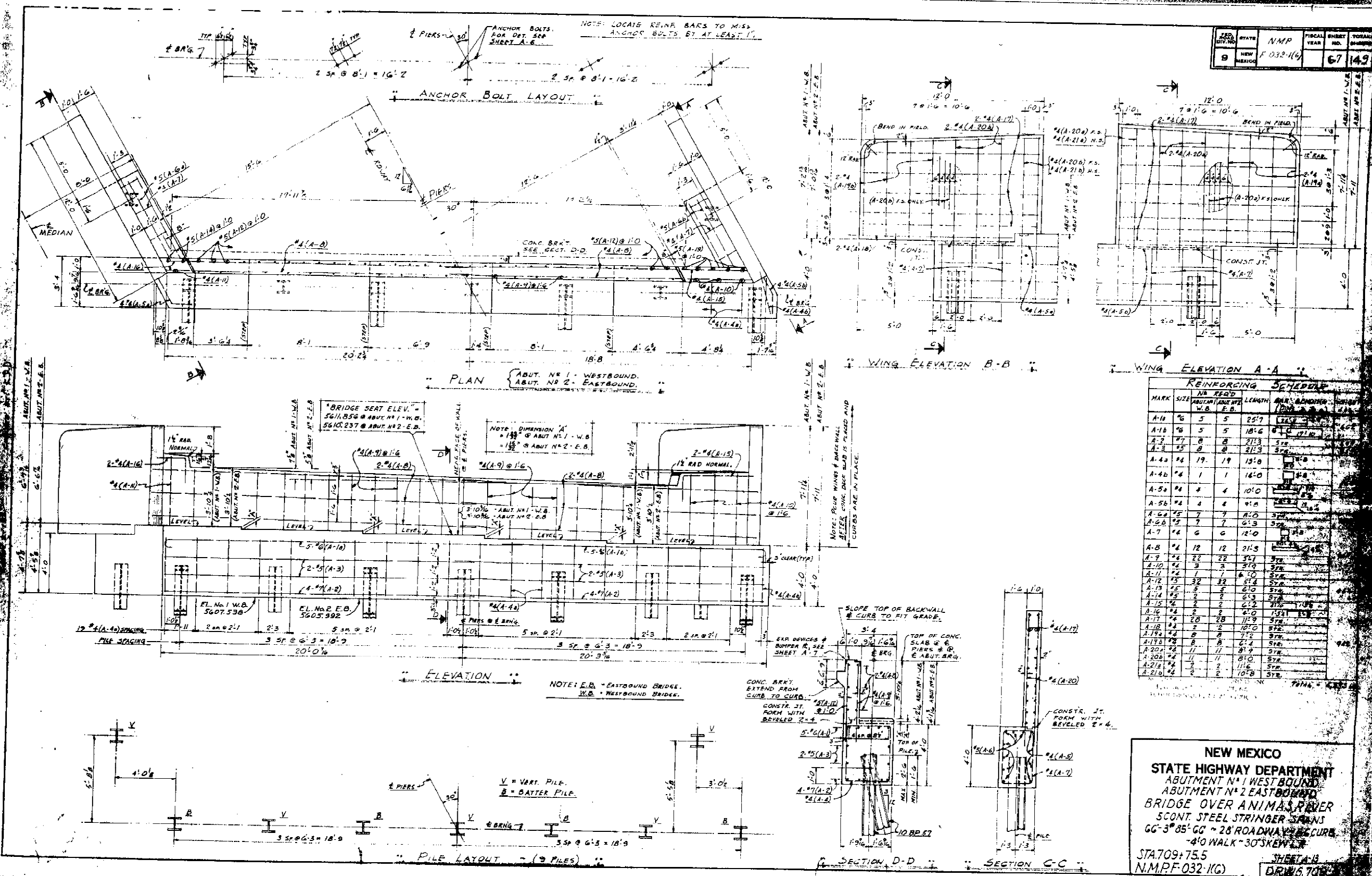
TABLE OF VARIABLE DIMENSIONS		
	PIER NO. 4 EASTBOUND	PIER NO. 4 WESTBOUND
A	1' 1/2"	1' 1/2"
B	2' 5 1/2"	2' 7 1/2"
BRIDGE SEAT ELEV.	5609' 635	5609' 572
BOTT. FTG. ELEV.	5573' 450	5573' 254

PIER REINFORCING SCHEDULE							
MARK	SIZE	NUMBER	RATIO	LENGTH	BAR BENDING	WEIGHT	
		EAST- BOUND	WEST- BOUND		(LBS. & FT. LB.)	(LBS.)	
P-1	#8	4	4	37'-10"	STR.	808	
P-2	#8	4	4	35'-0"	STR.	957	
P-3	#8	4	4	28'-0"	STR.	598	
P-4	#8	4	4	24'-0"	STR.	653	
P-5	#8	2	2	35'-8"	STR.		
P-6	#8	2	2	30'-0"	STR.		
P-7	#8	3	3	17'-0"	STR.		
P-8	#8	6	6	2'-0"	STR.		
P-9	#8	4	4	8'-0"	STR.		
P-10	#8	4	4	8'-0"	STR.		
P-11	#8	4	4	8'-0"	STR.		
P-12	#8	4	4	8'-0"	STR.		
P-13	#8	4	4	8'-0"	STR.		
P-14	#8	4	4	8'-0"	STR.		
P-15	#8	4	4	8'-0"	STR.		
P-16	#8	4	4	8'-0"	STR.		
P-17	#8	4	4	8'-0"	STR.		
P-18	#8	4	4	8'-0"	STR.		
P-19	#8	4	4	8'-0"	STR.		
P-20	#8	4	4	8'-0"	STR.		
P-21	#8	4	4	8'-0"	STR.		
P-22	#8	4	4	8'-0"	STR.		
P-23	#8	4	4	8'-0"	STR.		
P-24	#8	4	4	8'-0"	STR.		
P-25	#8	4	4	8'-0"	STR.		
P-26	#8	4	4	8'-0"	STR.		
P-27	#8	4	4	8'-0"	STR.		
P-28	#8	4	4	8'-0"	STR.		
P-29	#8	4	4	8'-0"	STR.		
P-30	#8	4	4	8'-0"	STR.		
P-31	#8	4	4	8'-0"	STR.		
P-32	#8	4	4	8'-0"	STR.		
P-33	#8	4	4	8'-0"	STR.		
P-34	#8	4	4	8'-0"	STR.		
P-35	#8	4	4	8'-0"	STR.		
P-36	#8	4	4	8'-0"	STR.		
TOTAL						11,424	

NOTE:
SEE SHEET 4-10 FOR QUANTITIES & DESIGN DATA.

NEW MEXICO
STATE HIGHWAY DEPARTMENT
PIER NO. 4 EASTBOUND
PIER NO. 4 WESTBOUND
BRIDGE OVER ANIMAS RIVER
SCOTT STEEL STRINGER BRIDGE
66° 3' 05" E - 28' ROADWAY - 10' 0" SKEN
4' 0" WALK - 30' SKEN
STA 709+75.5
N.M.P.F. 032-1(G)
APPROVED: [Signature]
BRIDGE ENGINEER

FED. DIST. NO.	STATE	N.M.P.	TOTAL YEAR	SHEET NO.	TOTAL SHEETS
9	NEW MEXICO	F 032-116		67	149



NEW MEXICO
STATE HIGHWAY DEPARTMENT
ABUTMENT NO. 1 WESTBOUND
ABUTMENT NO. 2 EASTBOUND
BRIDGE OVER ANIMAS RIVER
SCOT. STEEL STRINGER SPANS
GG-3° 85' GG-28 ROADWAY CURVE
-4'0 WALK-30'S KNEW
STA 709+75.5
N.M.P.F. 032-116
SHEET 67
DRW 6708
APPROVED: [Signature]