



INVITATION TO BID

CONSTRUCTION CONTRACT

BID NUMBER: CSWCD-ITB-23-2

Sealed bid opening

**NEW MEXICO DEPARTMENT OF AGRICULTURE BY
CORONADO SOIL AND WATER CONSERVATION DISTRICT**

CSWCD-ITB-23-2

SECTION 1

INVITATION TO BID

BID NUMBER: CSWCD-ITB-23-2

BIDDER:

Name:

Address:

Phone:

Fax:

E-mail:

PROJECT:

Las Huertas Reservoir Liner Replacement



AGENCY/POINT OF CONTACT:

**CORONADO SOIL AND WATER
CONSERVATIONDISTRICT**

P.O. BOX 69
BERNALILLO, NM 87004



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BID NUMBER: CSWCD-ITB-23-2

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NEW MEXICO DEPARTMENT OF
AGRICULTURE
BY CORONADO SOIL AND WATER
CONSERVATION DISTRICT

November 16, 2023

TIME: 11:00 A.M. MST

Chief Procurement
Officer: **Jon Couch**

Contact: Carolyn Kennedy
District Manager
(505) 867-2853

IMPORTANT

**DEADLINE FOR MAILED-IN BIDS: MUST BE
RECEIVED BY November 9, 2023. Bids must
be submitted in a sealed envelope with the bid
number and opening date clearly indicated on the
bottom left hand side of the front of the envelope.**

SEALED BIDS WILL BE RECEIVED UNTIL THE ABOVE-SPECIFIED DATE AND LOCAL TIME, THEN PUBLICLY OPENED ON THE DATE AND TIME SPECIFIED AT EL ZOCALO PLAZA, 264 SOUTH CAMINO DEL PUEBLO, BERNALILLO, NEW MEXICO, AND READ ALOUD. MAIL BIDS TO THE CORONADO SOIL AND WATER CONSERVATION DISTRICT (CSCWD) AT THE ADDRESS STATED ABOVE.

THIS BID IS SUBJECT TO THE REQUIREMENTS OF THE BIDDING DOCUMENTS AS DEFINED IN THE "INSTRUCTIONS TO BIDDERS."

THE BID PROPOSAL FORM MUST BE ACCOMPANIED BY A SURETY BOND, SUBCONTRACTOR LISTING FORM, AND DOCUMENTS SPECIFIED IN THE "INSTRUCTIONS TO BIDDERS."

Bidding Documents: Bidding documents, plans, specifications, drawings etc. may be obtained at <http://www.coronadoswcd.org/itb>

The Bidding Documents contain a time for completion of the work and further impose liquidated damages for failure to complete the work within that time period.

Bids shall be presented in the form of a total Base Bid proposal under a Lump Sum Contract plus any additive or deductive alternates that are selected by the Agency. A bid must be submitted on all bid items and alternates; segregated bids will not be accepted.

NOTE: Base Bid price shall not include state gross receipts or local options taxes. Taxes will be included in the Contracted Amount at prevailing rates as a separate item to be paid by the Agency.

In submitting this bid, each Bidder must satisfy all terms and conditions of the Bidding Documents. No Bidder may withdraw his bid for **60 DAYS** after the actual date of the opening thereof.

Wage Rates & Workforce Solutions Registration: Pursuant to the Public Works Minimum Wage Act, Section 13-4-10 to 13-4-17, NMSA 1978, all work covered by this Invitation to Bid shall be in accordance with applicable state laws and, if the bid amount is sixty thousand dollars (\$60,000) or more, is subject to the minimum wage rate determination issued by the New Mexico Department of Workforce Solutions, Labor Relations Division, Public Works Unit. Section 13-4-13.1 *requires* Contractors when their bid is over \$60,000 and subcontractors of all tiers when their portion of the work is over \$60,000, to be registered with the Labor Relations Division of the Department of Workforce Solutions. This registration is available under the "Contractor Registration" section at the following website:

<http://www.dws.state.nm.us/LaborRelations/LaborInformation/PublicWorks>

There may be some administrative delay in processing your registration. Pursuant to Section 13-4-13.1, NMSA 1978, the Agency **cannot accept your bid if you are not registered at the time of bid opening.**

Please direct all questions concerning registration to DWS at (505) 841-4400.

A completed Subcontractor Listing Form must accompany each bid.

Bonds: Bid Security in the form of a surety bond executed by a surety company authorized to do business in the State of New Mexico in the amount of five percent (5%) of the total bid, or the equivalent in cash by means of a cashier's check or in a form satisfactory to the Agency, must accompany each bid in accordance with the Instructions to Bidders.

A 100% Performance Bond and a 100% Payment and Materials Bond for the total contract amount, including appropriate New Mexico Gross Receipts Tax, executed by a surety company authorized to do business in the State of New Mexico shall be required from the successful Bidder prior to award of contract. A subcontractor shall provide performance and payment bonds if the subcontractor's contract (to the Contractor) for work to be performed is \$125,000 or more. Failure of a subcontractor to provide the required bonds shall not subject the Agency to any increase in cost due to approved substitution of subcontractor.

Pay Equity Reporting Requirements: Pay Equity Form PE10-249 must accompany each bid unless the bidder is exempt. If exempt, the bidder must check the appropriate box on the Bid Form which identifies the reason for the exemption.

The Agency intends to award this Project to the lowest responsive responsible Bidder. The Agency reserves the right to reject any and all bids, to waive technical irregularities, and to award the contract to the Bidder whose bid it deems to be in the best interest of the Agency.

Preferences: Applicants for all resident businesses, veterans, and Native American preferences will have to obtain preference numbers from the New Mexico Department of Taxation & Revenue. ***Vendor must submit a copy of their preference certificate with each solicitation in order to receive the preference.*** Applications are available for download at the following website:

<http://www.tax.newmexico.gov/Businesses/in-state-veteran-preference-certification.aspx>

A Pre-Bid Site Visit, which is not mandatory but is recommended, will be held as follows:

DATE: Thursday, October 12, 2023

TIME: 10:00 A.M. Mountain Daylight Saving Time

LOCATION: Meet at Placitas Post Office, then drive approximately 3 miles to the project area

POINT OF CONTACT: Jon Couch, info@coronadoswcd.org

CONTRACTING AGENCY:

The Coronado Soil and Water Conservation District (CSWCD) is seeking qualified bidders to **provide construction services to complete the Las Huertas Reservoir Liner Replacement.**

Questions regarding the technical aspects of the bidding documents shall be submitted to Jon Couch, Chief Procurement Officer, at info@coronadoswcd.org.

Questions regarding purchasing/invoicing procedures shall be submitted to Carolyn Kennedy, District Manager, CSWCD, at (505) 867-2853 or e-mail: info@coronadoswcd.org.

The last day for questions is close of business (5:00 pm local time) Thursday, October 19, 2023.

1. SPECIFICATIONS AND BIDDING FORMS

Contract Documents, Construction Specifications and bidding forms may be obtained at

<http://www.coronadoswcd.org/itb>

2. DEFINITION OF TERMS

For all purposes herein, the terms "Contracting Agency" "Agency" and "CSWCD" shall refer to the Coronado Soil and Water Conservation District.

3. SPECIFICATIONS, FEES AND TAXES

- a) Construction will be performed in conformance to the Natural Resources Conservation Service Conservation Practice Construction Specification, including all updates, and in conformance with the Supplemental Technical Specifications as included in the Contract Documents.
- b) Pursuant to Section 1.4.1.10, NMAC Bidders are hereby notified that all Bids submitted are to exclude the applicable state gross receipts tax or applicable local option tax. The applicable gross receipts tax or applicable local option tax will be shown as a separate amount on each billing or request for payment made under the Contract.

Permits and Licenses: Unless otherwise specified herein, the Contractor is responsible to obtain and pay for all permits and licenses required for this Project. These costs shall be included as Contractor's overhead and will not be reimbursed. No allowances for the permits and licenses are included in the bid. The U.S. Forest Service has exempted the construction project from a Special Use Permit, and all required environmental assessments have been performed.

4. INTERPRETATION OF DOCUMENTS

If any persons contemplating submitting a Bid for the Work are in doubt as to the meaning of any part of the Plans, Specifications or other Contract Documents, they may submit to the Chief Procurement Officer a written request for an interpretation thereof to be received at any time prior to close of business (5:00 pm local time) on Friday, September 22, 2023. Any interpretation of the documents will be made only by addendum duly issued.

5. **ADDENDA**

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. On their Bid, each Bidder shall acknowledge receipt of each addendum. Failure to acknowledge addenda may deem the bid unresponsive.

6. **EXAMINATION OF SPECIFICATIONS, CONTRACT DOCUMENTS, AND PROJECT SITE**

There will be a Pre-Bid Site Visit as noted in Section 1 of the Invitation to Bid. Bidders may visit the site of the proposed work, fully acquaint themselves with the existing conditions relating to the construction of the Project, fully inform themselves as to the facilities involved, and fully investigate the difficulties and restrictions attending the performance of the Contract. Bidders unable to attend the Pre-Bid Site Visit may contact Jon Couch at info@waterprisms.com for directions to the site. Each Bidder shall thoroughly examine and familiarize themselves with the Plans, Specifications, and all other Contract Documents. The Contractor, by the execution of the Contract, shall not be relieved of any obligations thereunder due to their failure to receive or examine any form or legal instrument or to visit the site and acquaint themselves with the conditions there existing. CSWCD will be justified in rejecting any claim based on facts which the Contractor should have noticed as a result of visiting the work site. The Bidders shall familiarize themselves with federal, state and local laws, ordinances, rules and regulations and the Project site and local conditions and any other matters which would affect the construction, performance of the Work and employment of labor thereon.

7. **SUBMISSION OF BIDS**

Bids shall be made on the printed forms, which are a part of these Contract Documents, as set forth in Section 4. Prices shall be filled in for all items in the Bid, as required in the Unit Price Bid sheets. Prices shall be shown in numerals in ink, printed or typed in the spaces provided. Alterations to bid amounts by erasures or by interlineations shall be initialed by the signer of the Bid. All Bids shall be submitted and received with the understanding that the Bidder accepts the terms and conditions contained herein. **One original and one copy of the Unit Price Bid contained in Section 4 shall be submitted.**

8. **BID SECURITY**

Each bid shall be accompanied by a bid bond issued by a surety duly authorized to conduct business in the State of New Mexico, approved in Circular 570 as published by the U.S. Treasury Department, and acceptable to CSWCD in the amount of five percent (5%) of the total amount of the Bid. Bid security is submitted as a guaranty that the Bidder, if awarded the Contract, will promptly execute such Contract in accordance with the Bid and in the manner and form required by the Contract Documents and will furnish good and sufficient bond for the faithful performance of the same and for the payment of all labor and materials. The bid security of the three (3) lowest Bidders will be retained until the Contract

is awarded or other disposition is made thereof. Bids submitted without the required bid security will not be considered.

9. MODIFICATION AND WITHDRAWAL OF BIDS

Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and received prior to the scheduled closing time for the receipt of Bids

10. OPENING OF BIDS

Bidders are invited to be present at the Bid Opening. The person reading the Bids will utilize the following procedure:

- a) Read name of Bidder and Bidder's New Mexico Contractor's License Number and classification(s) held.
- b) Acknowledge receipt of bid security.
- c) Verify two copies of the Bid are received.
- d) Verify Bidder's acknowledgment of addenda.
- e) Read the amount of the Bid.
- f) Determine if a Resident, Resident Veteran, Resident Native American, or Resident Native American Veteran Contractor discount applies and calculate the discounted amount.
- g) Verify that List of Subcontractors is furnished.
- h) Read Liner Installation Experience, if any.
- i) Determine whether other requirements have been met, if any.

11. BID CONSIDERATION TIME

CSWCD will require time to study and canvass each Bid and determine which Bid it deems to be in the best interest of CSWCD to accept. In consideration thereof, no Bid may be withdrawn after the scheduled closing time for receipt of bids for the period of time specified in the Bid.

12. QUALIFICATIONS OF BIDDERS

All Bidders must be currently licensed in the State of New Mexico for the type of work to be performed at the time of Bid submittals. Pond or reservoir liner installation experience is desirable.

13. POWER OF THE CONTRACTING AGENCY

CSWCD reserves the right to accept any or all Bids and to waive technicalities, to make any investigation deemed necessary of a Bidder's ability to perform the work covered by the Plans and Specifications and to accept what, in its judgment, is the best Bid. Without limiting the generality of the foregoing, any Bid which is incomplete, obscure, or irregular may be rejected; any Bid having erasures or corrections in the price sheets may be rejected; any Bid in which unit prices are omitted, or which is accompanied by an insufficient bid bond, may be rejected. CSWCD also reserves the right to reject the Bid of a Bidder if any one or more of the following apply to a Bidder: previously failed to perform properly in any other governmental, quasi-governmental, or private construction project, including inferior materials, inferior workmanship, attempts to use substandard equipment, excessive inspection caused to CSWCD to insure good workmanship, used poor construction methods; failed to complete on time a Contract of similar nature; failed to complete work in a workmanlike manner; failed to promptly complete warranty work; failed to coordinate the work of Subcontractors and other persons on the job site; failed to properly coordinate inspections or supervision by CSWCD; failed to take appropriate directions from CSWCD; made excessive requests for unjustified change orders; has unresolved disputes with CSWCD or outstanding litigation with CSWCD (not including protests or appeals from protests regarding current or prior jobs); or is not in a position to perform the work governed by the Contract. CSWCD reserves the right to review the qualifications of Bidders and will reject the Bid of any Bidders whose qualifications are considered inadequate for this Contract.

14. SUBCONTRACTORS, OTHER PERSONS, ORGANIZATIONS

The Contract Documents require the identity of Subcontractors and other persons and organizations to be submitted to CSWCD as shown on the Bid. All Bidders shall submit to CSWCD a list of all Subcontractors, including all technical professionals and testing laboratories, and shall complete the form set forth in Section 4, Paragraph 4. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualification for each such Subcontractor, person, and organization. If CSWCD, after due investigation, has reasonable objection to any proposed Subcontractor, other person, or organization, CSWCD may, before giving the Notice of Award, request the apparent successful Bidder to submit an acceptable substitute without an increase in their Bid amount. If the apparent successful Bidder declines to make any such substitution, it will thereby sacrifice the Bid Security and withdraw from this Bid. Any Subcontractor, other person, or organization so listed and to whom CSWCD does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to CSWCD.

Pursuant to Section 13-4-13.1, NMSA 1978, Contractors and Subcontractors awarded contracts in excess of \$60,000 are required to register with the Labor and Industrial Division of the New Mexico Department of Workforce Solutions and obtain a registration number prior to Bid submittal. All tiers of Subcontractors shall be subject to the requirements of the

Act. Failure to obtain a registration number prior to Bid submittal will deem the Bid non-responsive and the Bid will be rejected. Contractors are required to list their registration number as part of their Bid submittal. Failure to do so will deem the Bid nonresponsive and the Bid will be rejected. Contractors are required to list their Subcontractor's registration number on the Subcontractors' Supplemental Form and are required to submit the Subcontractors' Supplemental Form to CSWCD as per the instructions on the Subcontractors' Supplemental Form. Failure to comply with the instructions on the Subcontractors' Supplemental Form will deem the Bid nonresponsive and the Bid will be rejected.

15. AWARD OF CONTRACT

- a) CSWCD reserves the right to reject any and all Bids and waive any and all informalities and irregularities, according to Sections 13-1-131 and Section 13-1-132 of the NMSA Purchasing Code, and the right to disregard all nonconforming or conditional Bids or counter proposals.
- b) Subject to the terms and conditions specified herein, if a Contract is awarded, it will be awarded to the lowest responsive and responsible Bidder meeting qualifications on the Base Bid shown on the Bid, provided, however, that if the Bid is a Unit Price Bid and there is a discrepancy between the amount shown as the Base Bid and the actual total amount of the Bid Items determined by multiplying the Unit Price shown for each Bid Item by the Estimated Quantity shown for that Bid Item and adding each such amount, it will be awarded to the lowest responsive and responsible Bidder on the actual total amount of the Bid Items, excluding the New Mexico Gross Receipts Tax (NMGRT).
- c) If the Contract is to be awarded, the CSWCD Chief Procurement Officer or his/her designee will give the apparent successful Bidder a Notice of Award and notify unsuccessful bidders.

16. PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

Prior to the execution of the Contract by CSWCD, the successful Contractor shall furnish separate surety bonds each in the amount of one hundred percent (100%) of the total Contract price, including Gross Receipts Tax, as security for the faithful performance of the Contract and for the payment of all labor and materials. The sureties on such bonds shall be duly authorized to conduct business in the State of New Mexico, approved in Circular 570 as published by the U.S. Treasury Department, and acceptable to CSWCD. The cost for furnishing these bonds is incidental to the contract and no separate payment shall be made therefor.

17. AFFIRMATIVE ACTION PROGRAM

The Contractor shall comply with all applicable Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements contained herein.

In the event that a state and/or federal agency is providing funding for this Contract and has specific Affirmative Action/Equal Opportunity and Nondiscrimination requirements that are in conflict with these requirements, the specific state or federal requirements will govern.

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

Each Bidder shall execute and submit the Certification of Bidder Regarding Affirmative Action/Equal Employment Opportunity and Nondiscrimination in the completed Bid.

19. WAGE RATES

The Bidder's attention is directed to the fact that wages to be paid on the Project shall not be less than the prevailing wage rates as listed in Section 3 herein.

20. UTILITIES

The Contractor shall make all provisions for supply of power, water and other utilities necessary for construction purposes. The Contractor shall be responsible for the coordination of all utilities.

21. 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.

22. SAFETY STANDARDS AND ACCIDENT PREVENTION

With respect to all work performed under this Contract, the Contractor shall:

- a) Comply with the safety standards provisions of applicable laws, building and construction codes, and the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the Federal Register, Volume 36, Number 75, Saturday April 17, 1971 as amended and updated.

- b) Exercise every precaution at all times for the prevention of accidents and the protection of persons, including employees and property.
- c) Maintain at a well-known place at the job site, all articles necessary for giving first aid to the injured and shall make standing arrangements for the immediate removal to a hospital or a doctor's care. In no case shall employees be permitted to work at a job site unless and until the Contractor has made a standing arrangement for the immediate removal of injured persons to a hospital or a doctor's care.

23. EXTENSION OF UNIT PRICES

In case of an error in the extension of prices in the bid, unit prices shall govern.

24. PROTESTS

In accordance with Section 13-1-172 NMSA 1978, any Offeror who is aggrieved in connection with a solicitation or award of an Agreement may protest to the CSWCD Board of Supervisors. The protest must be submitted in writing within fifteen (15) calendar days after knowledge of the facts or occurrences giving rise to the protest to:

Coronado Soil and Water Conservation District
Attn: Lynn Montgomery, Chair
PO Box 69
Bernalillo, NM 87004
Telephone: 505-867-9580

Protests must include the name and address of the protestant, the solicitation number, and a statement of grounds for protest, including appropriate supporting exhibits. Protests received after the deadline will not be accepted.

25. APPLICABLE LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable State Laws, County Ordinances, and the rules and regulations of all authorities having jurisdiction over construction of this Project shall apply to the Contract throughout. They will be deemed to be included in the Contract the same as if set out in full herein.

APPLICATION OF PREFERENCES: Pursuant to the requirements set forth in Section 13-4-2, NMSA 1978, to receive a Resident Contractor preference or a Resident Veteran Contractor preference, Bidders must submit a valid preference certificate issued by the Taxation and Revenue Department. If the required preference certificate is submitted, the following preferences shall apply:

- Resident Contractor or Native American Resident Contractor: bid shall be evaluated at eight percent (8%) lower than the bid received.

- Resident Veteran Contractor or Native American Resident Veteran Contractor: with annual revenue of up to six million dollars (\$6,000,000) to be evaluated at ten percent (10%) lower than the bid actually submitted.

To receive the Resident Veteran Contractor preference or Native American Resident Veteran Contractor preference, Bidder must also submit the Resident Veterans Preference Certification ("Certification"). A preference will not be applied if the Certification is not submitted.

Bidders are not eligible to receive both a Resident Contractor preference and a Resident Veteran Contractor preference, or both a Native American Resident Contractor and a Native American Resident Veteran Contractor preference.

26. APPROVAL OF INSURANCE

If applicable, even though a "Notice to Proceed (NTP)" may have been given, the Contractor or a Subcontractor shall not begin any work under this Contract until the required insurance has been obtained and the proper Certificates (or insurance policies) have been filed with CSWCD. Neither approval nor failure to approve certificates, policies, or the insurance by CSWCD shall relieve the Contractor of full responsibility to maintain the required insurance in full force and effect.

SECTION 3

MINIMUM WAGE RATES

- A. The minimum wages to be paid to the various classes of mechanics and laborers engaged by the Contractor and Subcontractors for Work under this Contract including any additional, omitted or changed work, shall not be less than the amount as determined and established by the Labor and Industrial Division of the New Mexico Department of Workforce Solutions as provided by Section 13-4-11, NMSA 1978 and in full force and effect, without exception, on the date of the Contract and during the lifetime of this Contract.
- B. The Contractor and each of its Subcontractors shall pay each of its employees working under this Contract in full, in cash, not less than once a week, less all legally required deductions or withholdings. When circumstances are such that payment in cash is not feasible or is impractical, payment may be made by check, provided, however, that adequate funds to cover same are on deposit at the bank upon which the checks are drawn, and further that the checks may be cashed without charge, trade requirements, or undue inconvenience to the payee.
- C. The minimum wage rates, if any, specified for apprentices shall apply only to persons working with the tools of the trade that they are learning, and under the direct supervision required by law, the number of apprentices in each trade or occupation employed by the Contractor or any Subcontractor shall not exceed the number permitted under the usual practice prevailing between Trade Unions and Employers Association of the respective trades or occupations.
- D. Extra Work - Minimum Wage. In case Coronado Soil and Water Conservation District (CSWCD) orders the Contractor to perform extra work or additional work which may make it necessary for the Contractor or any Subcontractor under him to employ, in the performance of such work, any person in any trade or occupation for which no minimum wage rate is specified, CSWCD will include in the Contract Change Order for such extra or additional work the minimum wage rate for such trade or occupation; and, insofar as such extra or additional work is concerned, there shall be paid each employee engaged in the work in such trade or occupation, not less than the minimum wage rate included.
- E. Wage Underpayments and Adjustments. The Contractor agrees that, in case of underpayment of wages to any worker on the Project under this Contract, CSWCD may withhold out of payments due an amount sufficient to pay such worker the difference between the wages required to be paid under his Contract and the wages actually paid such worker for the total number of hours worked and

Section 3. Minimum Wage Rates

that CSWCD may disburse such amount so withheld by it, for and on account of the Contractor to the employee to which such amount is due. The Contractor further agrees that the amounts to be withheld pursuant to this paragraph may be in addition to the percentages to be retained by CSWCD pursuant to other provisions of this Contract.

A copy of the New Mexico State Office of the Labor Commissioner Minimum Wage Rates and Apprentices minimum wage scales in effect at the time of the Contract shall be posted or otherwise made available to the Contractor's employees at all times on the job.

The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, age, religion, gender, national origin, sexual orientation, spousal affiliation, veteran status, mental or physical disability, or handicap.

SECTION 4
UNIT PRICE BID

To Coronado Soil and Water Conservation District.

1. BID

The undersigned (hereinafter called "Bidder"), in compliance with your invitation for bids for

LAS HUERTAS RESERVOIR LINER REPLACEMENT,

having carefully examined the Contract Documents and 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 materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the Project in accordance with the Contract Documents, within the time set forth herein, and at the unit prices stated below. These prices cover all expenses incurred in performing the work required under the Contract Documents of which this proposal is a part. Quantities shown in this Unit Price Bid and in alternates, if any, have been estimated. Payment will be made for confirmed quantities as constructed.

2. BID RESPONSE - NOTICE TO BIDDERS

The Bidder shall fully complete and execute (sign) and submit one original and one copy (2 total) of the following:

- Bid Form
- Acknowledgment of Subcontractor's list
- Acknowledgment of Addenda
- Request for Qualifications
- Bid Bond (Security)
- Equal Employment Opportunity
- Certification of Non-Discrimination
- Non-Collusion Affidavit
- Report on Uncompleted Projects in Force
- Preference Certification, if eligible
- List of liner installation projects completed in last 5 years
- Subcontractor(s) experience

The Bidder shall include the following documentation, if eligible:

Resident Contractor, Resident Veteran Contractor, Native American Resident Contractor, or

Native American Resident Veteran Contractor Preference Certificate from NM
Taxation and Revenue Department.

NOTES:

- A. In case of discrepancies between the original and the copy, the original form will take precedence.
- B. Failure to complete fully and accurately the List of Subcontractors, the Contractor's New Mexico Department of Workforce Solutions Registration Number, if applicable **shall** result in the Bid being deemed non-responsive and Bid **shall** be rejected.
- C. Failure to fully complete and execute (sign) each of the documents may result in the Bid being deemed non-responsive and Bid **may** be rejected.

3. UNIT PRICE BID

CONTRACTORS ARE REQUIRED TO BID ON ALL ITEMS

BIDS WILL BE EVALUATED ON BASE BID WITHOUT GROSS RECEIPTS TAX OR ANY OPTIONAL LOCAL TAXES. APPLICABLE TAXES MUST BE SUBMITTED AS SEPARATE ITEM ON THE INVOICE. SEPARATE INVOICES ARE REQUIRED FOR EACH BID LOT, WHERE APPLICABLE.

Section 4. Unit Bid Price

CSWCD-ITB-19-1

Bidder's Name: _____

LAS HUERTAS RESERVOIR LINER REPLACEMENT

The Bidder will complete the Work for the following price(s):

Item No.	Description	Unit	Approximate Quantity	Unit Price	Estimate
1	Mobilization/Demobilization (Site Construction)	LS	1		\$
2a	Remove and Replace Pond Bottom Ballast (2" Round Rock)	CY	105		\$
2b	Remove and Replace Pond Sidewall Ballast (2" Angular Rock)	CY	170		\$
2c	Remove and Dispose of Old Liner and Geotextile	LS	1		\$
3	Liner Anchor Trench	LF	525		\$
4	Subgrade Preparation	LS			\$
5	Pond Liner	--	---	--	---
5a	Furnish and Install 16-oz Geotextile Fabric	SF	22,500		\$
5b	Furnish and Install 60-mil HDPE Reinforced Liner	SF	22,500		\$
6	Furnish and Install Gabion Mattress	LS	1		\$
ESTIMATE TOTAL					\$
SUBTOTAL					\$
GRAND TOTAL					\$

4. SUBCONTRACTORS (SEE INSTRUCTIONS TO BIDDERS):

The listing threshold is \$5,000. Second tier Subcontractors are not required to be listed. Reference NMSA 13-4-34.

Name	City or County	Work Description
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____
7.	_____	_____
8.	_____	_____

NOTE: This Subcontractor's form shall be required to be completed in full with the Bid for compliance with this Bid (attach additional sheets if required). Failure to identify all Subcontractors and complete in full the forms contained in the entire bid document, including but not limited to the above form, shall render the Bid non-responsive and the Bid shall be automatically rejected. Bidder will attach a brief statement of Subcontractor's experience.

5. ADDENDA

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 _____

6. BID PERIOD

Bidder agrees that this Bid may not be withdrawn for a period of sixty (60) days after the scheduled closing time for receipt of Bids.

7. CONTRACT AWARD

If the Contract is to be awarded, CSWCD will give the apparent successful Bidder Notice of Award within sixty (60) days after the scheduled closing time for receipt of Bids. Notice to Proceed may be delayed, at the sole discretion of CSWCD, up to 120 days after the Bid Opening.

8. EXECUTION OF CONTRACT DOCUMENTS

Upon receipt of the Letter of Intent to Award from CSWCD, the apparent successful Bidder will execute the formal Contract Documents within ten (10) days and deliver Performance Bond, Labor and Material Bond, Certificate of Liability Insurance, and Certificates of Workman's Compensation Insurance for approval by CSWCD.

9. BID SECURITY

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

10. DECLARATION OF INTERESTS

The undersigned, as Bidder, hereby declares that the only persons or firms interested in the proposal as principal or principals is or are named herein and that no other persons or firms than herein mentioned have any interest in this proposal or in the Contract to be entered into; that this proposal is in all respects fair and in good faith without collusion or fraud.

11. AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY AND NONDISCRIMINATION

The bidder hereby agrees if awarded the Contract, to comply with the Affirmative Action/Equal Employment Opportunity and Nondiscrimination requirements of the Special Provisions and to submit all information and report required therein.

12. REQUEST FOR QUALIFICATIONS

Attach a list of similar projects completed in the past 5 years, including locations, contract amount or size, type of reservoir or pond, and any pertinent details that will help CSWCD determine the Bidder's ability to perform the work. Failure to provide the requested information will render the Bidder unresponsive and the Bid will be rejected.

Respectfully Submitted:

Name of Bidder

By:

Federal Tax ID Number

State Tax ID Number

Bidder's Address

Printed Name and Title of Authorized Signature

Bidder's Telephone Number

Bidder's New Mexico Contractor's License
Number(s) and Classification(s)

Bidder's Fax Number

Contractor's New Mexico Department of
Workforce Solutions Registration Number

Bidder's E-mail Address

NM Resident Contractor Preference Number

Bidder's Gross Receipts Tax No.

NM Resident Veteran Contractor Preference
Number

BID BOND
(SECURITY)

KNOW ALL MEN BY THESE PRESENTS:

THAT _____
as Principal, hereinafter called the Principal, and _____
a corporation duly 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, as Surety, hereinafter called the Surety, are held and firmly bound unto Coronado Soil and Water Conservation District as obligee, in the sum of _____, for payment of which sum we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents. The condition of this obligation is such, that whereas the Principal has submitted the accompanying Bid dated: _____, 20____, for _____ which Bid is by reference made a part hereof and is hereinafter referred to as the Bid.

NOW, THEREFORE, if Coronado Soil and Water Conservation District shall accept the Bid of the Principal and the Principal shall enter into a Contract with Coronado Soil and Water Conservation District in accordance with the terms of such Bid, and give such bond or bonds as may be specified in the Bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof or in the event of the failure of the Principal to enter into such Contract and give such bond or bonds, if the principal shall pay to Coronado Soil and Water Conservation District the difference not to exceed the penalty hereof between the amount specified in said Bid and such larger amount for which the Contracting Agency may in good faith Contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

SIGNED AND SEALED THIS _____ day of _____, 20_____.

ATTEST:

Principal
By: _____
Title: _____

ATTEST:

Surety
By: _____
Title: _____

EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, age, religion, gender, national origin, sexual orientation, spousal affiliation, veteran status, mental or physical disability, or handicap. The Contractor will take affirmative action to ensure that qualified applicants are employed, and that employees are treated equally during employment without regard to their race, color, age, religion, gender, national origin, sexual orientation, spousal affiliation, veteran status, mental or physical disability, or handicap. 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 selecting for training, including apprenticeship.
- b. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, a copy of this provision of the Contract setting forth the provisions of this nondiscrimination clause.
- c. The Contract will, in all solicitations or advertisements for employment placed by or on behalf of the Contract, state that all qualified applicants will receive consideration for employment without regard to race, color, age, religion, gender, national origin, sexual orientation, spousal affiliation, veteran status, mental or physical disability, or handicap.
- d. The Contractor will send to each Labor Union or representative of workers with which he has collective bargaining agreements or other Contractor understandings, a notice advising the Labor Union or worker's representative of the Contractor's commitments to comply with all applicable laws and regulations regarding nondiscrimination in employment.

Name of Bidder

By:_____

Date:_____

CERTIFICATION OF NONDISCRIMINATION

Certification regarding the Performance of Previous Contracts or Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports.

The Bidder _____,
proposed Subcontractor _____,
hereby certifies that he has _____, has not _____, participated in a previous Contract or Subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that he has _____, has not _____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administrating agency, or the former President’s Committee of Equal Employment Opportunity, all reports due under the applicable filing requirements.

(Company)

By: _____

Date: _____

(Title)

NOTE: The above certification is required by the Equal Employment Opportunity regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)) and must be submitted by Bidders and proposed Subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts or subcontracts of \$10,000 or under are exempt.)

Currently Standard Form 100 (EEO-1) is the only report required by the Executive Orders of their implementing regulations.

Proposed prime Contractors and Subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such Contractor submits a report covering the delinquent period or such other period specified by the Coronado Soil and Water Conservation District or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____

County of _____

being first duly sworn, deposes and says that:

- 1) He is the _____ of _____, the Bidder that has submitted the attached bid;
- 2) He 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 any collusion, conspiracy, connivance or unlawful agreement any advantage against the Coronado Soil and Water Conservation District 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 _____

REPORT ON UNCOMPLETED PROJECTS IN FORCE

STATE OF NEW MEXICO
COUNTY OF _____

I, _____
of _____
(Firm Name)

(Address)

being duly sworn, do depose and state:

That I, or the firm, association or corporation of which I am a member, had the following
uncompleted work of contracts in force as of the tenth (10th) day of this, the current
month:

Table with 2 columns: CONTRACTING AGENCY and UNCOMPLETED WORK. Multiple rows for listing contracts and their values.

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

Signed: _____

Notary Public
My commission expires _____.

Title

Preference Discount Certification

_____ (NAME OF CONTRACTOR) hereby certifies the following in regard to application of the preference discount to this procurement:

Please check one box only

I declare under penalty of perjury that my business has a valid **Resident Business** certificate allowing me the 8% preference discount on this solicitation. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

I declare under penalty of perjury that my business has a valid **Resident Veteran Business** certificate and that prior year revenue starting January 1 ending December 31 is up to \$6 million allowing me the 10% preference discount on this bid. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

I declare under penalty of perjury that my business has a valid **Native American Resident Business** certificate allowing me the 8% preference discount on this bid. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

I declare under penalty of perjury that my business has a valid **Native American Resident Veteran Business** certificate and that prior year revenue starting January 1 ending December 31 is up to \$6 million allowing me the 10% preference discount on this bid. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

“I agree to submit a report, or reports, to the State Purchasing Division of the General Services Department declaring under penalty of perjury that during the last calendar year starting January 1 and ending on December 31, the following to be true and accurate:

“In conjunction with this procurement and the requirements of this business’ application for a Resident Business Preference/Resident Veteran Business Preference/Native American Resident Business Preference/Native American Resident Veteran Business Preference under Sections 13-1-21 or 13-1-22 NMSA 1978, when awarded a contract which was on the basis of having such preference, I agree to report to the State Purchasing Division the awarded amount involved. I will indicate in the report the award amount as a public works contract from a public body.

“I understand that knowingly giving false or misleading information on this report constitutes a crime.”

“I declare under penalty of perjury that this statement is true to the best of my knowledge. I understand that giving false or misleading statements about material fact regarding this matter constitutes a crime.”

_____ (Date)

(Signature of Business Representative)*
*Must be an authorized signatory for the Business.

The representations made in checking the boxes constitutes a material representation by the business that is subject to protest and may result in denial of an award or revocation of the award if the statements are proven to be incorrect.

SECTION 5

BONDING AND INSURANCE REQUIREMENTS

The minimum requirements for bonding and insurance requirements shall be as follows:

- a. A bid guarantee from each Bidder equivalent to five percent (5%) of the bid price. The “bid guarantee” shall consist of a firm commitment such as an original bid bond, or other negotiable instrument acceptable to Coronado Soil and Water Conservation District (CSWCD) accompanying a Bid as assurance that the Bidder will, upon acceptance of this Bid, execute such contractual documents as may be required within the time specified.

NOTE: The forms below will only be required from the responsive and responsible low bidder after the bid opening:

- b. A performance bond on the part of the contractor for 100% of the Contract price. A “performance bond” is one executed in connection with a Contract to secure fulfillment of all the Contractor's obligations under such Contract.
- c. A payment bond on the part of the contractor for 100% of the Contract price. A “payment bond” is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the Contract.
- d. Certificate of Insurance will be required in the terms, conditions and amounts as stated in these specifications.

Section 5. Requirements and Required Forms

CONTRACTOR'S PUBLIC LIABILITY INSURANCE

If part of the Contract with the CSWCD is sublet or subcontracted, the vendor shall require the Subcontractor to secure insurance to protect itself against all hazards enumerated herein, which are not covered by the vendor's insurance policies and to include CSWCD as an additional insured thereon.

The Contractor shall procure and maintain, during the life of this Contract, Workers Compensation, Commercial General Liability, and Business Automobile Liability Insurance policies. The policies will be written with CSWCD as additional insured, while acting within the scope of their duties against all claims arising out of, or in connection with, the work to be performed. All insurance documents must include a provision for 30 day written notification to Coronado Soil and Water Conservation District, P.O. Box 69, Bernalillo, New Mexico 87004 if a policy has been materially changed or canceled. CSWCD shall be an additional insured (Form B – CG2010 10/01 or on another form) and will be written on an occurrence form and shall provide limits as follows.

Until final acceptance by CSWCD of the work covered, the Contractor shall procure and maintain at the Contractor's expense, insurance of the kinds and in the amounts herein provided. This insurance shall be provided by insurance companies authorized to do business in the State of New Mexico and shall cover all operations under the Contract, whether performed by the Contractor, the Contractor's agents or employees, or by Subcontractors. All insurance provided shall remain in full force and effect for the entire period of the work, up to and including final acceptance, and the removal of all equipment and employees, agents and Subcontractors.

- A. (1) Workers Compensation-Statutory**
(2) Employers Liability-\$1,000,000

Contractor shall comply with the provisions of the Workers Compensation Act of the State of New Mexico, (the "Act"). If the Contractor has determined that it is not subject to the Act, it will certify, in a signed statement, that it is not subject to the Act. The Contractor will notify CSWCD and comply with the Act should it employ three or more persons during the term of any Agreement with CSWCD. If the Contractor fails to comply with the Workers Compensation Act and applicable rules when required to do so, agreement with CSWCD may be terminated effective immediately.

B. Commercial General Liability with ISO CG0001 07/98

(1) Bodily Injury/Property Damage	\$1,000,000 Each Occurrence \$2,000,000 Aggregate
(2) Products/Completed Operations:	\$1,000,000 Each Occurrence \$2,000,000 Aggregate

Section 5. Requirements and Required Forms

- (3) Property Damage Liability Insurance shall not exclude (XCU)
- (4) Pollution Legal Liability-\$1,000,000 Each Occurrence

C. Business Automobile Liability

- (1) Combined Single Limit-\$1,000,000 Each Occurrence with ISO CA0001 10/01
- (2) Pollution Liability (MCS90) for Transportation exposure (if applicable)-
\$1,000,000 Each Occurrence

Business Automobile Liability Insurance shall include coverage for the use of all owned, non-owned and hired automobiles and vehicles.

D. Independent Contractor: Included

E. Contractual Liability: Included

The Contractor shall furnish one copy each of Certificates of Insurance herein required for each copy of the Agreement, which shall specifically set forth evidence of all coverage required. If such limits are higher than the minimum limits required by CSWCD, such limits shall be certified and shall apply to the coverage afforded CSWCD under the terms and conditions of the contract as though required and set forth in the Contract. The Contractor shall furnish to CSWCD copies of any endorsements that are subsequently issued amending coverage or limits.

Approval of Insurance

Even though a "Notice to Proceed" may have been given by CSWCD, the Contractor or Subcontractor(s) shall not begin work under this Contract, or solicitation, until the required insurance has been obtained and the proper Certificates of Insurance (or insurance policies) have been filed with CSWCD, adding CSWCD as an additional insured as applicable. Neither approval nor failure to approve certificates, policies or insurance by CSWCD shall relieve the Contractor or Subcontractor(s) of full responsibility to maintain the required insurance in full force and effect.

Increased Limits

If, during the life of this Contract or solicitation, the legislature of the State of New Mexico increases the maximum limits of the liability under the Tort Claims Act, CSWCD may require the successful Contractor to increase the maximum limits of any insurance required herein. In the event that the successful Contractor is required to increase the limits of such insurance, an appropriate adjustment in the Contract amount will be made.

SECTION 6
AGREEMENT

THIS AGREEMENT MADE THIS _____ day of _____, 20_____, by and between _____, hereinafter called the Contractor, and the Coronado Soil and Water Conservation District.

WITNESSETH: That the Contractor and Coronado Soil and Water Conservation District for consideration stated herein mutually agree as follows:

ARTICLE 1. Statement of Work. The Contractor shall furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services, including utility and transportation services, and perform and complete all work required of the construction of the improvements for: **Las Huertas Reservoir Liner Replacement**, in Sandoval County, New Mexico, and any required supplemental work, all in strict accordance with the Contract Documents, including all addenda thereto, numbered and dated as follows:

Addendum Number _____ Dated _____

Addendum Number _____ Dated _____

Addendum Number _____ Dated _____

ARTICLE 2. The Contract Price. Coronado Soil and Water Conservation District will pay the Contractor for the performance of the Contract in the current funds, in the amount of (to include New Mexico Gross Receipts Taxes in Contract Price):

for the total quantities of work performed at the unit prices stipulated in the bid for the several respective items of work completed subject to addition and deductions as provided in Contract Documents.

ARTICLE 3. Contract. The executed Contract Documents shall consist of the following:

- A. This Agreement
- B. Addenda (if any)
- C. Advertisement for Bids
- D. Instructions to Bidders
- E. Signed Copy of Bid
- F. Performance Bond

- G. Labor and Material Bond
- H. Special Provisions
- I. Project Drawings and Notes
- J. Supplemental Specifications
- K. Standard Specifications (NRCS Specifications)
- L. Project Forms
- M. Insurance Certificates and Endorsements

This Contract, together with other documents enumerated in this Article 3, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, forms the Contract between the parties hereto. In the event that any provision of any other component part of this Contract conflicts with any provision or other component part, the provisions of the component part first enumerated in this Article 3 shall govern, except as otherwise specifically stated.

IN WITNESS THEREOF, the parties hereto have caused this Agreement to be executed by their authorized officials in three (3) original copies (one to be provided to the Contractor and two (2) to be provided to Coronado Soil and Water Conservation District, one (1) to be retained by the Coronado Soil and Water Conservation District (CSWCD) and one to be retained by Las Huertas Community Ditch on the day and the year first written above.

ATTEST:

(Contractor)

_____ BY: _____
 _____ TITLE: _____

ATTEST: Coronado Soil and Water Conservation District
 (Contracting Agency)

SIGNATORIES

SECTION 7

SPECIAL PROVISIONS

1. GENERAL

The following paragraphs for the Special Provisions for this Contract shall be a part of, and supplementary to, the Contract, and shall be used in conjunction therewith as one of the Contract Documents.

The general conditions of the Contract, as amended herein, are a part of the Contract entered into between the Contractor and Coronado Soil and Water Conservation District (CSWCD) and shall apply to all portions of the work hereinafter or shown on the drawings, including all Subcontracts.

2. REQUESTS FOR PAYMENT

Immediately prior to submission of the monthly pay estimates and upon completion of all currently completed work by the Contractor, an inspection of the work accomplished will be made and all quantities will be measured jointly by CSWCD or its agent and the Contractor subject the terms and conditions contained herein. Payment will be made based on actual quantities measured in place including any supporting documentation.

3. PROJECT SITE

The site improvement work to be accomplished under this Contract is located on the Cibola National Forest, Sandia Ranger District, at approximately 35°16'44.1"N 106°24'34.2"W or 35.278929, -106.409486 near the Village of Placitas, Sandoval County, New Mexico.

4. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

The work which the Contractor is required to perform under this Contract shall begin at the time stipulated by CSWCD in the Notice to Proceed to the Contractor and shall be completed within 90 calendar days from the date of the Notice to Proceed.

Liquidated damages, at the rate of \$200.00 per day, shall be assessed against the Contractor for each calendar day or portion thereof that work remains incomplete after expiration of the time specified in the Notice to Proceed or any approved written extensions of time.

5. COMMUNICATIONS

A. All notices, demands, requests, instructions, changes to the Contract, approvals,

proposals and claims shall be in writing.

- B. Any notice to, or demand upon the Contractor, shall be sufficiently given if delivered at the office of the Contractor as stated in the Bid (or at such other office as the Contractor may, from time to time designate in writing to CSWCD) or if deposited in the United States mail in a sealed, postage-prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission to such office.
- C. All papers required to be delivered to CSWCD, unless otherwise specified in writing to the Contractor, shall be mailed to:

Coronado Soil and Water Conservation District
P.O. Box 69
Bernalillo, NM 87004

and any notice to, or demand upon CSWCD, shall be sufficiently given if so delivered, or if deposited in the United States mail in a sealed postage- prepaid envelope to CSWCD at such address, or to such other address or representative as CSWCD may subsequently specify in writing to the Contractor for such purpose.

- D. Any such notice shall be deemed to have been given as of the time of actual delivery or, in the case of mailing, when the same should have been received in due course of post, or in the case of telegrams at the time of actual receipt, as the case may be.

6. COORDINATION OF SPECIFICATIONS AND CONTRACT DOCUMENTS

These Plans, Specifications, Contract Documents, and all Addenda to the Specifications and Documents, if any, are essential parts of the Contract, and a requirement occurring in one is just as binding as though occurring in all. They are intended to be complementary, to describe and provide for a complete work. In case of a discrepancy, figured dimensions, unless obviously incorrect, shall govern over scaled dimensions.

The Contractor shall not take advantage of any apparent error or omission in the Plans and Specifications. In the event the Contractor discovers an apparent error or discrepancy, the Contractor shall immediately call upon CSWCD for its interpretation and decision, and such decision shall be final.

7. TERMINATION

This Agreement may be terminated by CSWCD for its convenience upon written notice to the Contractor.

8. EMERGENCY PROVISIONS

The Contractor must designate at least one (1) capable, responsible employee to represent employee(s) shall be given to CSWCD's representative and may be dispersed to the applicable Fire Department, Sheriff's Office or other emergency personnel.

9. ACCESS TO SITE

The Contractor will allow access to the construction site(s), afford all facilities for observation of the work as it progresses, and provide for the on-site safety of authorized personnel of the following:

- A. CSWCD and its Agents.
- B. Other City, County, State and Federal Agencies and their Agents as necessary (e.g., U.S. Forest Service).

10. SOURCE AND PURCHASE OF MATERIALS, EQUIPMENT, AND SUPPLIES

- A. As part of this Contract, and as one of the considerations for the awarding of the same, the Contractor agrees that they will not, in the performance of this Contract, knowingly do business with or purchase or obtain materials, equipment, supplies, or services of any kind or character, either directly or indirectly, from any employee of CSWCD.
- B. The Contractor further agrees that, in the event of a violation of any of the provisions of the preceding paragraph, this Contract may be canceled by CSWCD, and in such an event, the Contractor waives and relinquishes any right or claim which they may have or claim to have for damages, current or future payments or otherwise by reason of such cancellation.

11. NIGHT WORK

Whenever the Contractor shall be permitted or directed to perform night work or to vary the period during which work is ordinarily carried on in the daytime, they shall give notice to CSWCD so that proper observation may be provided. Such work shall be done under regulations to be furnished in writing by CSWCD, and no extra compensation shall be allowed the Contractor therefor. In the event of night work, the Contractor shall furnish such lights, satisfactory to CSWCD, as will assure proper observation and safety.

12. WATER & UTILITIES

The Contractor, at their expense, shall provide and make arrangements for water and other utilities required.

The Contractor shall be responsible for the coordination of all utilities.

13. TAXES

Pursuant to Section 13-1-108, NMSA 1978 as it may be from time to time amended, all bids submitted are to exclude the applicable state gross receipts tax or applicable local option tax. CSWCD will pay the applicable tax including any increase in the applicable tax which becomes effective after the date of the Contract. The applicable gross receipts tax or applicable local option tax shall be shown as a separate amount on each billing or request for payment made under the Contract.

14. TRAFFIC CONTROL PLANS AND TRAFFIC INTERFERENCE

All work on this Contract will be completed as expeditiously as possible pursuant to the terms specified in the Contract. The Contractor will not be permitted to block or otherwise interfere with traffic except as approved by the appropriate entity (Sandoval County or NMDOT).

15. CONSTRUCTION SITE SAFETY

CSWCD is not responsible for Construction Site Safety Engineering. The Contractor is responsible for all Construction Site Safety Engineering. Construction Site Safety Engineering as used herein includes, but is not limited to, design and review of site safety precautions which are utilized to protect the workmen, the general public, and others from bodily injury or property damage. This includes, but is not limited to, scaffolding, trench shoring, and concrete form work and the structural adequacy of the same.

Traffic control devices such as detours, barricades, warning lights, and signs of the proper type and location; the use of flagmen; and all other methods and means of maintaining a safe place to work shall be the responsibility of the Contractor and shall be in accordance with the most current edition of Manual on Uniform Traffic Control Devices of the U.S. Department of Transportation, Federal Highway Administration.

All Contractors and their Subcontractors shall comply with OSHA 29 CFR 1926, Safety and Health Regulations for Construction.

16. MANUFACTURER'S WARRANTIES

CSWCD and the Contractor(s) shall exhaust all manufacturer's warranties, prior to filing of claims against any other party, for the failure of such manufactured products to function properly.

17. CONTRACT DOCUMENTS

CSWCD will furnish the Contractor without charge five (5) copies of the Contract Documents. Additional copies requested by the Contractor will be furnished at cost.

18. RECORDING WORK

The Contractor shall keep one record copy of all Plans, Specifications, Drawings, Addenda, Modifications, and Shop Drawings at the site in good order and annotated to show all changes made during the construction process current to within two weeks. These shall be available to CSWCD’s representative at all times.

19. CHANGES IN THE WORK - CHANGE ORDERS

The combined allowance for overhead and profit, included in the total cost to CSWCD, shall be based on the following procedure: With each proposal for a change in the amount of the Contract, the Contractor shall submit an itemized breakdown of all increases or decreases in the cost of the Contractor's and all Subcontractor's work to include at least the following detail in the general order listed:

Material quantities and unit costs

Labor amounts and hourly rates (identified with specific items of materials to be placed or operation to be performed)

Equipment cost, if any

Worker’s Compensation and Public Liability Insurance

Overhead and Profit

Employment Taxes under FICA and FUTA

The allowance for overhead and profit combined shall be based on the following schedule:

	Subtotal before Applying <u>the Percentage Shown</u>
Contractor for work performed by their own forces	10
Subcontractor for work performed by their own forces	10
Contractor for work performed by their Subcontractors	5

Overhead for individual change order proposals that include a time extension of five (5) calendar days or less shall include such as the following: bond premiums, small tools, incidentals, and general office expenses.

Overhead for those including a time extension more than five (5) calendar days shall include such as the above with superintendent and wages of timekeepers negotiated on an individual basis.

On proposals covering both increases and decreases in the amount of the Contract, the combined overhead and profit shall be allowed on the net increase only.

Field change directives may be issued by the CSWCD Representative. If such directive requires a change order that affects the contract amount or contract time, the Contractor shall provide a written quote for the cost of the change order based on unit prices in the bid tabulation. Under no circumstances may the Contractor bill CSWCD for the amount of the change order until after it has been approved by CSWCD.

20. METHOD OF MEASUREMENT FOR PAYMENT

All items required for this Project except those listed in the unit price schedule shall be considered incidental to the Contract, and no additional payment shall be made unless unanticipated conditions are discovered. Whether conditions are unanticipated shall be in the sole discretion of CSWCD, in which case a change order shall be prepared. The Contractor shall not be paid for performing any work not specifically required by the Contract or written change orders approved by CSWCD. The cost of performing the change order work must be agreed upon by both parties to the Contract unless a written notice to proceed is issued by CSWCD prior to initiation of construction on the changed work.

If any incidental work is not completed by the Contractor, CSWCD at its discretion may remove payment from the mobilization bid item and use those monies to perform the incidental work as necessary, which may include the use of another contractor. CSWCD shall withhold 15% of the mobilization bid item until the project reaches substantial completion and 10% of the mobilization bid item until the project is finalized.

21. CONTRACTOR'S INDEMNIFICATION

The Contractor hereby agrees to hold harmless and indemnify CSWCD, its officers, agents, and employees from and against all liability, claims, damages, losses or expenses, including attorney's fees, arising out of or resulting from the Contractor's and/or any of their sub-contractor's employees', agents', or officers' conduct, performance, act(s), effort(s), or omission(s) relating in any manner whatsoever to this Agreement. This indemnification provision is subject to the limitations and provisions of Section 56-7-1, NMSA 1978.

Receipt by CSWCD of the Contractor's services under this Agreement, review by CSWCD of any Plans, Specifications and documents by the Contractor, and authorizations for the Contractor to proceed with the various phases of services shall not be construed as approval of

the Contractor's work product by CSWCD or as the giving of instruction or directions by CSWCD.

The indemnity required hereunder shall not be limited by reason of the specifications of any particular insurance coverage in this Agreement.

22. CONTRACTOR'S DUTY

The Contractor has the affirmative duty to discover any defects, errors or omissions in the Plans, Specifications, Change Orders, and/or in the actual construction of the Project, and upon discovery, to immediately report them to CSWCD and to take any and all action necessary to mitigate and/or eliminate their effect on the Project and the cost thereof to the maximum extent possible.

If the Contractor discovers or should have discovered an error, omission or discrepancy in the Plans, Specifications, Change Orders, and/or in the actual construction of the Project and fails to notify CSWCD's representative of such, then the Contractor shall assume all incidental and consequential liability therefor, shall not be compensated therefor, and shall indemnify and hold harmless CSWCD therefor.

23. CONSTRUCTION SURVEYING AND STAKING

Construction surveying and staking shall be performed by the Contractor unless provided for by others. The associated costs shall be considered incidental and included in the costs under the applicable bid item(s), unless there is a specific bid item for construction staking.

24. PUBLIC NOTICE AND COORDINATION

Coronado Soil and Water Conservation District will perform all necessary public notification and communication.

25. TESTING

The Contractor shall be responsible for all testing, including, but not limited to, quality control testing and quality assurance testing except as otherwise provided.

26. OWNERSHIP OF DOCUMENTS

CSWCD is the sole owner of all documents, reports, and data compiled or arising out of the Contract and/or Project regardless of the medium used.

27. GUARANTEE PROVISIONS

After the approval of final payment and prior to the expiration of one (1) year after the date of substantial completion of this Contract or upon availability of sufficient naturally flowing water to test liner integrity, whichever is longer; or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, if any work is found to be defective, Contractor shall promptly, without costs to CSWCD and in accordance with CSWCD's written instruction, either correct such defective work or, if it has been rejected by CSWCD, remove it from the site, and replace it with non-defective work. The Contractor shall also reimburse CSWCD for the cost of any reasonable testing or exploratory work conducted to verify the limits and amounts of the defective work. If the Contractor fails to promptly comply with the terms of such instructions, CSWCD may have the defective work corrected or the rejected work removed and replaced and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by the Contractor. Liner integrity shall be tested by Las Huertas Community Ditch as soon as practicable after completion and results shall be considered conclusive. Upon completion of any remedial work the liner shall be tested again with the same requirements and responsibilities.

28. PROJECT CONSTRUCTION SIGNS

The Contractor shall provide, erect, and maintain for the duration of the construction project any construction signs at locations identified by CSWCD.

29. CULTURAL RESOURCES

If the Contractor discovers human remains or other archaeological evidence during Project excavation, they shall cease work in the area, and notify the CSWCD Representative, who will then notify the New Mexico State Historic Preservation Officer.

30. PROJECT SEQUENCING BY CONTRACTING AGENCY

CSWCD reserves the right to direct the Contractor to schedule certain parts of the project for completion before others. If so directed, the Contractor shall construct that portion of the project when directed by CSWCD.

31. PARTIAL ACCEPTANCE

Partial acceptance of completed portions of the project is permitted and encouraged. When a portion of the Project is complete, tested, and ready to be able to provide service,

the Contractor may request acceptance of that portion of the Project

32. **WORKING HOURS**

The Contractor shall limit his operations to a 10-hour work day Monday through Friday. The 10-hour workday shall be considered to be from 7:30 am to 5:30 pm with a ½ hour lunch period during which the Contractor's operations may continue. The Contractor may submit a written request for alternate working hours, however, under no circumstances shall a normal work week exceed 60 hours (including lunch periods). Written requests for alternate working hours shall be submitted to CSWCD for approval no later than the date of the Preconstruction Meeting. Alternate working hours shall be approved for the entire duration of the contract, with the exception of emergency conditions.

33. **DUST ABATEMENT**

The Contractor shall make all efforts to mitigate fugitive dust by utilizing water for dust control and in compliance with their SWPPP.

34. **THREATENED OR ENDANGERED SPECIES**

If any threatened or endangered species or their habitats are discovered during construction, work will cease immediately, and the EPA will be notified in order that appropriate measures can be taken in accordance with the Endangered Species Act.

35. **DISPOSAL OF CONSTRUCTION MATERIALS**

Construction material and waste products, including machinery leaking, maintenance materials and spills, will be contained and properly disposed of prior to project completion.

36. **WEATHER DELAYS**

If adverse weather conditions are the basis for a request for additional time, such request shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

SECTION 8

TECHNICAL PROVISIONS

1. **GENERAL**

All work to be performed will comply with appropriate provisions of Natural Resources Conservation Service Conservation Practice Construction Specification as amended; (herein referred to as the Standard Specifications) unless otherwise noted.

2. **EXISTING UTILITIES**

There are no existing utilities in the project area.

3. **MAINTENANCE AND CLEANING**

The Contractor shall provide daily maintenance and cleaning of construction site. Diesel, oil and any other spills are to be cleaned up immediately before proceeding with construction and shall be disposed of in a manner that meets the satisfaction of the representative of the CSWCD.

4. **EXISTING WALLS OR FENCES**

If any part or all of the reservoir perimeter fence is removed or damaged by the Contractor, it shall be replaced or repaired at the Contractor's expense.

5. **FINAL ACCEPTANCE OF WORK**

Final acceptance of the Project will be based on CSWCD's certification of substantial compliance with plans and specifications.

6. **LIMITS OF WORK**

The Construction Project site locations, approximate lengths, and scope of work are as shown on the construction documents.

7. **HOUSEKEEPING**

The Contractor shall perform other tasks as noted on the drawings

8. CONSTRUCTION TASKS

The work associated with this Contract, located on the vicinity maps, is as shown and outlined in the proposals schedule, specifications, and general notes.

9. STANDARD TECHNICAL SPECIFICATIONS

Technical specifications reference the following sections of the Natural Resources Conservation Service Conservation Practice Construction Specification:

CONSTRUCTION SPECIFICATION	CODE
DUST CONTROL ON UNPAVED ROADS AND SURFACES	373
OPEN CHANNEL	582
POND	378
POND SEALING OR LINING - FLEXIBLE MEMBRANE	521A

SUMMARY OF WORK

Scope of Work:

Project Description:

The Site which is the subject of this Contract (“Site”) includes the **Las Huertas Reservoir Liner Replacement**. Items described in the ITB Bidding Form include:

1. Mobilization to the Site for Construction activities
2. Removal and disposal of existing liner and geotextile, removal and replacement of ballast rocks
3. Excavation of new anchor trench for new liner installation and backfill
4. Preparation of subgrade for installation of new 60-mil HDPE liner
5. Pond Liner
 - 5a. Furnish and install 8 oz. Geotextile fabric in accordance with plans and specifications
 - 5b. Furnish and install 60-mil HDPE liner in accordance with plans and specifications
6. Furnish and install Gabion Mattress

WORK RESTRICTIONS

GENERAL

1) Description of Requirements

- a) Site Description: The Work will be conducted at a remote location in the Sandia Mountains where access is difficult and restricted. Keys to the gates that restrict access will be provided to the Contractor, which must be returned upon completion. It will be the responsibility of the Contractor to lock, or to ensure that they are locked, upon vehicle entry and upon vehicle exit. At no time shall the access road gate remain open.

2) Access to the Site

- a) Contractor personnel and vehicles which are necessary for completion of the Work will be provided access to the Work area.
- b) The size of the Work area is extremely small and restricted, and only those personnel, equipment, and vehicles required to perform the work shall be allowed within the Work area. The Contractor shall not alter the existing Site conditions for access and parking at the Site without the Permission of the Agency.
- c) The Contractor shall provide the Agency with a list of persons he wishes to enter upon the project area. The list shall be kept up to date at all times; and any changes, deletions, or additions may only be made by the Contractor or his designated representative.

MEASUREMENT AND PAYMENT

REQUIREMENTS INCLUDED

- A. Measurement and payment shall be as specified in this Section.
- B. Work to be performed under this Contract will be paid for in accordance with the conditions and general supplementary conditions under the appropriate bid items in the bid schedule. No item of Work shown on Drawings or Specifications will be considered for extra compensation due to a claim that it does not fall within the scope of one of the Bid Items.
- C. Scope of Work under each bid item includes all labor and materials required for construction of completely functional and operational facilities as shown on the Drawings and in these Specifications.
- D. The total Base Bid price shall cover all Work required by the Contract Documents for construction of a completely functional and operational facility. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plans, equipment, and tools; and performing all necessary labor and supervision to fully complete the Work in accordance with these Contract Documents, shall be included in the unit and Lump Sum prices bid. All Work not specifically set forth as a pay item in the Unit Price Bid Form shall be considered a subsidiary obligation of Contractor and as such, all cost in connection therewith shall be included in the prices bid.
- E. Estimated Quantities: All estimated quantities for unit price bid items stipulated in the Unit Price Bid Form are approximate and are to be used only as a basis for estimating the probable cost of the Work and for the purpose of comparing the bids submitted for the Work. The actual amounts of Work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for Work and materials will be the actual amount of Work done and materials furnished.
- F. Measurement and Payment: All measurements and payments will be based on completed Work performed in strict accordance with the Drawings and Specifications and in accordance with contract-unit prices and schedule of values. Incidental Work and items not listed in the contract-unit price schedule will not be paid for separately but will be included in the payment for the listed item or items to which such incidental Work applies. Measurement and payment for Lump Sum items shall be full compensation for all labor, equipment, materials, testing and incidentals necessary to perform the Work in accordance with these Contract Documents, and shall include all else incidental thereto for which separate payment is not provided under other items.

BID ITEM DESCRIPTION, MEASUREMENT AND PAYMENT

Bid Item 1 – Mobilization/Demobilization (Site Construction)

Shall include all costs for Contractor's mobilization and demobilization for Site construction, insurance and bond, construction permits and fees, and site administration expenses. Shall include all costs for Site cleanup following construction. Shall be paid on a lump sum basis.

Bid Item 2 – Removal and Replacement of Ballast Rock, Removal and Disposal of Existing Liner and Geomesh

Shall include all costs for removal and replacement of ballast rocks, removal and disposal off-site of existing geomesh and liner within the reservoir perimeter. Each subitem shall be paid on a lump sum basis.

Bid Item 3 – Excavate and Backfill New Anchor Trench for Liner

Shall include all costs for construction, including backfilling, of the Liner Anchor Trench around the Pond perimeter in accordance with the Drawings and *Natural Resources Conservation Service Conservation Practice Construction Specification Code 521A Pond Sealing or Lining – Flexible Membrane*. Shall be paid on a per LF basis.

Bid Item 4 – Subgrade Preparation

Shall include all costs for preparation of a clean, dry, well-compacted subgrade suitable for placement of the liner in accordance with *Specifications for Earthwork (6A)*. Shall be paid on a lump sum basis.

Bid Item 5 – Pond Liner

Pond Liner items are sub-classified as follows.

Bid Item 5a – 16-oz Non-Woven Geotextile Fabric

Shall include all cost for deployment of the Geotextile Fabric within the Reservoir, directly on top of the prepared subgrade, in accordance with the Drawings, and *Natural Resources Conservation Service Conservation Practice Construction Specification Code 521A Pond Sealing or Lining – Flexible Membrane*, and manufacturer's installation requirements. Geotextile fabric shall not be deployed until CSWCD's representative has accepted the condition of the underlying subgrade. Contractor shall submit shop drawings and/or material manufacturer specifications for Geotextile Fabric to CSWCD's representative for review and approval. Shall be paid on a per Square Foot basis for the quantity of material deployed (Contractor shall not be paid for wasted, excess, or scrap material).

Bid Item 5b – 60-mil HDPE Reinforced Liner

Shall include all cost for deployment of the Reinforced Liner within the Pond, directly on top of the Geotextile Fabric, in accordance with the Drawings and manufacturer's installation requirements. Contractor shall design liner panel layout and order liner material from Manufacturer to limit the length of field seaming required for installation. Shall also include all costs required for repair of liner or liner seams damaged or deemed inadequate as part of the installation/construction process. Contractor shall be responsible for the condition of the liner and liner seams until the Work has been accepted by CSWCD's representative at the completion of construction. Shall be paid on a per SF basis for the quantity of material deployed (Contractor shall not be paid for wasted, excess, or scrap material).

Bid Item 6 – Gabion Mattress

Shall include all cost for purchase and installation of one 12' x 6' x 6" DURA-FLEX™ Galvanized Gabion Mattress filled with 2-inch round stones as shown in the drawing **Sheet LH-C103**. Shall be paid on a lump sum basis.

Schedule

Contractor(s) shall submit a detailed schedule of the Work and estimated date of completion for review by CSWCD's representative prior to beginning construction.

Inspection and Acceptance

Various stages of construction, including but not limited to ballast stones installation, shall be inspected during progress by the agency representative to assure proper workmanship. Any work failing inspection shall be redone as required by the agency representative subject to the disputes clause.

PROJECT ORGANIZATION AND RESPONSIBILITIES

PART 1 GENERAL

1.1 SUMMARY

- A. The parties discussed in this section are associated with the ownership, design, manufacture, transportation, installation, and quality assurance of the Project. The definitions, qualifications, and responsibilities of these parties are outlined in the following subsections.

1.2 CONTRACTOR

- A. Definition: The Contractor is the firm(s) or corporation(s) with which the Agency has entered into agreement to construct the project.
- B. Responsibilities: The Contractor is responsible for scheduling and coordination of the required Work to complete the Project. The Contractor shall provide a representative at all times during any construction activity on-site.
- C. The Contractor shall be qualified to perform all aspects of Work required to successfully construct the Project. The Contractor shall be registered in the State of New Mexico and shall demonstrate prior related experience as required by the Technical Specifications.

1.3 CONTRACTOR'S REPRESENTATIVE

- A. Definition: The Contractor's Representative is a qualified individual assigned by the Contractor to represent him/her on-site at all times during all construction activity.
- B. Responsibilities: The Contractor's Representative is responsible for coordinating and supervising his crew and subcontractors' work site. The Contractor's Representative is responsible for making sure that the construction activities are conducted in accordance with the Plans and Specifications. The Contractor's Representative is responsible for pointing out to the Agency's Field Representative any discrepancies between the Plans and Specifications and the field conditions. The Contractor's Representative is responsible for attending all meetings held on the Project. The Contractor's Representative is responsible for keeping a daily log of all construction activities on-site. The Contractor's Representative is responsible for proposing alternate methods, where necessary, to the Agency's Field Representative for approval, and signature. If the Contractor's Representative encounters conditions on-site that are (1) subsurface of otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions 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 Contractor's Representative shall be given to CSWCD's representative promptly before conditions are disturbed and in no event later than 7 days after first observance of the

conditions. CSWCD's representative 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 recommend an equitable adjustment in the Contract Sum or Contract Time, or both.

- C. **Qualifications:** The Contractor's Representative shall be a qualified individual who is able to perform all the tasks associated with the construction activities. The Contractor's Representative shall demonstrate prior experience in this type of construction. The Contractor's Representative shall have the authority to direct and instruct their crew and their subcontractors.

1.4 AGENCY'S FIELD REPRESENTATIVE

- A. **Definitions:** The Agency's Field Representative will be responsible for observing and documenting activities related to the quality assurance of the construction of the Project. In the scope of this document, the term "Agency's Field Representative" applies to a qualified individual assigned by the Agency to oversee construction activities.
- B. **Responsibilities:** The Agency's Field Representative is responsible for observing and documenting activities related to the quality assurance of the construction of the Project including coordination of field testing and surveys. The Agency's Field Representative is responsible for implementation of the site's CQA Plan and coordination with site operations, as well as assuring that there is no water in the reservoir when work commences. The Agency may authorize, through the Agency's Field Representative, minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time and which are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and shall be binding on the Agency and Contractor, who shall perform the change promptly. If the Contractor believes that a Field Order justifies an increase in the Contract Price or Contract Time, the Contractor may make a claim as provided in the specifications.

PROJECT COMMUNICATION AND COORDINATION

PART 1 GENERAL

1.1 SUMMARY

- A. Related Documents: Provisions of the Contract, including Conditions of the Contract, Drawings and other General Requirements of the Specification, apply to this Section.
- B. Description: This Section specifies the requirements for project meetings related to management, administration, procedure and quality assurance of the work, including but not limited to, the following:
 - 1. Pre-construction meeting.
 - 2. Progress meetings.
 - 3. Specially called meetings throughout the progress of the work.

1.2 RESPONSIBILITIES

- A. Project meeting coordination (meeting times, locations and attendees) is the responsibility of the Agency.
- B. Project meeting administration is the responsibility of CSWCD's representative. The responsibilities include, but are not limited to the following:
 - 1. Prepare agendas.
 - 2. Distribute written notice and agendas of regular and specially called meetings (4) four days in advance of meeting date.
 - 3. Preside at the meetings.
 - 4. Record minutes and include significant proceedings and decisions.
 - 5. Distribute copies of minutes within three (3) days after each meeting:
 - a. To all participants in meeting.
 - b. To all parties affected by decisions made at the meeting.
 - c. Furnish (3) three copies of minutes each to Agency and Contractor.
- C. Representatives of Contractors, Subcontractors and Suppliers/Manufacturers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.

1.3 PRE-CONSTRUCTION MEETING

- A. Time: Schedule within seven (7) days before the date of commencement of the work established in the Contract Documents.
- B. Location: designated in the meeting notice.
- C. Attendance:
 - 1. Agency's Representative
 - 2. Contractor
 - 3. Subcontractors
 - 4. Representative of Las Huertas Community Ditch, owner of the reservoir.
- D. Minimum Agenda
 - 1. Distribution and discussion of:
 - a. List of major subcontractors and suppliers.
 - b. Project progress schedule.
 - 2. Critical work sequencing.
 - 3. Major product deliveries and priorities.
 - 4. Work coordination:
 - a. Relation and coordination of Subcontractors.
 - b. Designation of responsible personnel.
 - 5. Procedures and processing of:
 - a. Field decisions.
 - b. Proposal requests.
 - c. Change orders.
 - d. Application of payment.
 - 6. Adequacy of distribution of Contract Documents.
 - 7. Procedures for maintaining record documents.
 - 8. Use of Premises:
 - a. Access to project site.
 - b. Office, work and storage areas.
 - 9. Temporary facilities, controls and construction aids.
 - 10. Temporary utilities.
 - 11. Security procedures.
 - 12. Housekeeping procedures.

1.4 PROGRESS MEETINGS

- A. Time:
1. Schedule regular periodic meetings as required by Agency, but not less than every 14 days, except as otherwise required.
 2. Hold specially called meetings as required by work operations, progress of the work or as required by the Agency.
- B. Location: Project site office of the Agency, except as otherwise designated in the meeting notice.
- C. Attendance:
1. Agency's Representative
 2. Contractor
 3. Subcontractors
 4. Representative of Las Huertas Community Ditch, owner of the reservoir.
- D. Minimum agenda:
1. Review and acceptance of minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Note field observations, problems and decisions.
 4. Discuss any problems which may impede planned progress.
 5. Review off-site fabrication and delivery problems and schedules.
 6. Develop corrective measures and procedures to regain projected progress schedule.
 7. Revisions to progress schedule as required.
 8. Plan progress for succeeding the initial work period.
 9. Coordinate projected progress with separate contractors as needed.
 10. Maintaining of quality standards.
 11. Review proposed changes for:
 - a. Effect on progress schedule.
 - b. Effect on completion date.
 - c. Effect on separate contracts of Project.

Specifications for Earthwork

1. **GENERAL**

CSWCD's representative shall approve the materials and the method of placement and compaction and shall give approval of the completed subgrade preparation and fill after ensuring compliance with the specifications.

2. **SCOPE**

Includes all general excavating, grading and filling, and any related items necessary to complete the earthwork for the relining in accordance with these specifications.

3. **SUBSURFACE SOIL INFORMATION**

A subsurface soil investigation has not been conducted, but selected samples of the shallow soils at each of the reservoir sites have been collected for laboratory analysis of selected engineering properties. The Contractor is expected to examine the site and determine first-hand the character of materials to be found, and if additional testing or characterization may be required at Contractor's expense.

No additional allowance will be made for rock removal, site clearing and grading, filling, compaction, or disposal or removal of any unclassified materials.

4. **STRUCTURAL FILL**

Where a geotextile fabric (fabric) is used between the subgrade or fill and the overlying flexible membrane liner (FML), the maximum allowable size (diameter) of rock at the surface shall not exceed 1 inch. Fill materials shall be approved by CSWCD's representative.

When the quantity of suitable material required for fill is not available within the limits of the job site, the Contractor shall provide sufficient materials from borrow area(s) if directed to do so by the Agency. The Contractor shall obtain from the owners of said borrow area(s) the right to excavate material, shall pay all royalties and other charges, and shall pay all expenses in developing the source including the cost of right-of-way required for hauling the materials.

5. **CONSTRUCTION**

A. Pond Excavation

Any excavation required for the reservoir shall be to the lines and grades shown in the Drawings. Subgrade upon which liner material is to be placed shall not vary by more than +/-0.25 feet (ft) on the floor of the excavation, or the excavation sidewalls.

The final 6-inch surface of subgrade shall be compacted to 95% of the maximum dry density, as determined by ASTM D1557-C, rolled smooth, be free of protrusions, and shall contain no lumps or rocks larger than 3/8 inch. Roll the exposed subgrade transverse to slopes.

When the excavation has reached prescribed depths, CSWCD's representative shall be notified and will inspect conditions. If materials and conditions are not satisfactory to CSWCD's representative, the Agency representative will issue instructions as to the procedures to be initiated.

If the bottom of the excavation is taken below the limits shown on the Drawings, it shall be refilled at the Contractor's expense with maximum 8-inch loose lifts of compacted select fill placed and compacted to 90% of the maximum dry density.

If the Contractor does not control surface runoff to maintain a firm and dry subgrade, or fails to postpone final excavation immediately above the subgrade until shortly before placing new work, or otherwise fails or neglects to conduct the excavation work properly so the surface of the subgrade is in proper condition prior to construction, the Contractor shall remove the unsuitable material and replace it at his own expense with maximum 8-inch loose lifts of compacted select fill placed and compacted to 90% of the maximum dry density.

In no case shall the earth be plowed, scraped, or dug with machinery so near to the finished subgrade as to result in excavation of, or disturbance of, material below finished subgrade. During final excavation to subgrade elevation, the Contractor shall take the necessary precautions to prevent disturbance and remolding. Material which has been soft or loose or otherwise unsatisfactory to support the liner as a result of the excavation operation shall be removed and replaced as specified below. Compact the upper 6 inches of subgrade to at least 95% of the maximum dry density, as determined by ASTM D1557-C. The foundation area for the liner shall be very smooth and free of foreign and organic material, rocks larger than 3/8 inch, any angular rocks, sharp objects, or any other

projections that might damage the lining. Coverage by equipment tracks or roller shall provide a smooth surface prior to liner installation. Surface deformations shall not exceed 1 inch.

B. Compaction

Fill shall be spread in loose lifts not exceeding 8 inches, watered as necessary, and compacted. Moisture content at the time of compaction shall be optimum moisture, plus or minus 2%. Compaction of the fill shall be done by mechanical means only, to obtain 90% of the maximum dry density.

Optimum moisture content and maximum dry density (modified Proctor) for each soil type used shall be determined in accordance with ASTM D1557-C.

C. Weather Limitations

Controlled fill shall not be constructed when the atmospheric temperature is below 35 degrees Fahrenheit (°F). When the temperature falls below 35 °F, it shall be the responsibility of the Contractor to protect all areas of completed surface against any detrimental effects of ground freezing by methods approved by CSWCD's representative. Any areas that are damaged by freezing shall be reconditioned, reshaped, and compacted by the Contractor in conformance with the requirements of this specification without additional cost to the Agency.

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE CONSTRUCTION SPECIFICATION
DUST CONTROL ON UNPAVED ROADS AND SURFACES
CODE 373**

1. SCOPE

The work shall consist of improving air quality from agricultural operations by modifying cultural and management operations to reduce the amount of airborne dust/particulate matter as shown on the drawings, plans and/or as staked in the field.

2. GENERAL

Agricultural operations shall be performed as specified on the Practice Requirements Sheet. The landowner will be responsible for acquiring and following all necessary local, state, tribal, and federal permits.

3. DUST/PARTICULATE MATTER MANAGEMENT

Roads

Treat unpaved roads, staging areas, and equipment storage yards with water, chemicals, soil stabilizers, mulch, or other cover during harvest and other heavy use periods as specified on the Practice Requirements Sheet to reduce dust from the dust-producing areas.

Treatment shall minimize mud sticking to equipment tires. Dual tire trucks should be inspected and clods removed from between tires before going from a field onto a paved road. Avoid turning tractors and implements on paved roads if soil will be dropped on the road or damage to the road surface may occur. Soil dropped on the roads should be removed in a timely manner. Grizzlies may be placed at ingress/egress locations to facilitate mud removal.

Reduced speeds, restricted access, watering, use of washed gravel and sand can be applied to unpaved roads to reduce dust. Treat unpaved farm roads early enough in the day so that mud will not be carried onto paved roads. Vegetate or keep surfaces on road shoulders stable to reduce dust.

Materials used for dust control on unpaved farm roads and unpaved equipment storage areas shall conform to the following requirements:

- A. ROAD OILS: Liquid asphalts shall meet the requirements as specified within Cal Trans Standard Specifications, Section 93-1.01 for SC-250 and SC-800.
- B. LIGNIN/POLYMER EMULSIONS: Manufacturer's specifications and guidelines shall be used and followed for all polymer emulsions used as dust retardants.
- C. Other: Other materials may be applicable and shall be considered on a case by case basis by the NRCS engineer.

4. OTHER REQUIREMENTS

Conservation practice construction specifications are reviewed periodically, and updated if needed. To obtain the current version of this specification, contact the Natural Resource Conservation Service.

The Agency, Contractor, and other persons shall conduct all work and operations in accordance with proper safety codes for the type of equipment and operations being performed with due regard to the safety of all persons and their property.

Other conservation practices might be appropriate to use in conjunction with this practice, such as Heavy Use Area Protection (Code 561) and Windbreak/Shelterbelt Establishment (Code 380).

All materials used for dust control shall meet federal, state, and local regulations and shall be applied strictly in accordance with authorized registered uses, label directions, and all regulations. Containers shall be properly stored and disposed of in a safe manner according to all ordinances and procedures. All safety precautions and industry guidelines shall be followed. Materials used shall not cause negative impacts to ground and surface water quality and shall meet EPA and state regulations for water quality.

5. MANAGEMENT AND MAINTENANCE

Maintain the roadway surface in a good condition. This may require inspections and repair or maintenance as needed.

Prevent surface ponding by grading or filling to remove depressions prior to treatment(s). Promptly repair damaged areas to prevent further decline. Repair any vandalism, vehicular or livestock damage to earthfills, spillways or outlets or other apparatuses. Re-distribute or re-apply material as needed to maintain effectiveness.

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE CONSTRUCTION SPECIFICATION
POND SEALING OR LINING - FLEXIBLE MEMBRANE
CODE 521A**

1. SCOPE

The work shall consist of furnishing, installing and testing high-density polyethylene (HDPE) or ethylene propylene diene terpolymer (EPDM) linings and the necessary mechanical attachments as specified and as shown on the construction drawings. When the installed liner will too contain animal waste, the New Mexico Environment Department (NMED) shall be notified prior to beginning the work.

2. SITE PREPARATION

Site preparation (mobilization and demobilization, clearing and grubbing, structure removal, pollution control, and water for construction) shall be in accordance with Construction Specification 587.

3. MATERIALS

All lining material shall be free of damage or defect. Each package delivered to the job site shall be marked with the manufacturer's name or symbol, the name of the material, and the quantity, thickness, and weight of the material.

The manufacturer shall provide written certification of all of the following items:

- The material is suitable for the intended use;
- The expected service life of the flexible membrane under the anticipated conditions;
- The physical properties of the liner.

HDPE liners shall have a minimum nominal thickness of 40 mils. The liner shall be manufactured to be suitable for use in either exposed or buried conditions. Smooth HDPE shall be used unless otherwise specified or as may be shown on the drawings. The HDPE liner shall be manufactured from virgin polymer material and shall meet the following property values:

Property	Test methods	HDPE Requirements*	
		Smooth	Textured
Density, g/cc	ASTM D 1505	0.940	0.940
Tensile Properties	ASTM D 638 (type IV at 2 in/min)		
yield stress, lb/in		84	84
break stress, lb/in		60	152
yield elongation, %		12	12
break elongation, %		100	700
Tear resistance, lb	ASTM D 1004	28	28
Puncture resistance, lb	ASTM D 4833	60	72
Carbon black content, %	ASTM D 1603	2 - 3	2 - 3
Carbon black dispersion	ASTM D 5596	Cat 1-2	Cat 1-2
Seam properties	ASTM D 4437 (1 in wide at 2 in/min)		
shear strength, lb/in		80	80
peel strength, lb/in**		52/FTB	52/FTB

* All values, unless specified otherwise, are minimum average roll values as reported by the specified test methods.

** Film tear bond (FTB): A failure of one of the bonded sheets by tearing prior to complete separation in the bonded area.

EPDM liners shall have a minimum nominal thickness of 45 mils and shall be formulated from virgin compounding materials. Regrind, reworked or trim materials shall be from the same manufacturer and the same formulation as the liner. Recycled materials shall not be allowed. Nonreinforced EPDM shall be used unless otherwise specified or as may be shown on the drawings.

Property	Test methods	EPDM Requirements*	
		Nonreinforced	Reinforced
Specific gravity	ASTM D 792	1.1	1.1
Tensile properties	ASTM D 882 (Type IV at 20 in/min)		
break strength, lb/in		50	n/a
break elongation, %		400	n/a
Tensile properties	ASTM D 751, Method A	n/a	125
Tear resistance, lb	ASTM D 1004	9	n/a
Tear resistance, lb	ASTM D 5884, Method B	n/a	130
Puncture resistance, lb	ASTM D 4883	35	n/a
Puncture resistance, lb	FTMS**** 101C, Method 2031	n/a	45
Ply adhesion, lb/in	ASTM D 413, Machine Method	n/a	7
Low temperature brittleness, °F	ASTM D 1790	<-45	<-45
Seam properties	ASTM D 413/D 4437 (NSF modified 20 in/min strain rate)		
shear strength, lb/in**		35	n/a
peel strength, lb/in***		14	n/a
Seam properties			
shear strength, lb/in**	ASTM D 751	n/a	35
peel strength, lb/in***	ASTM D 413	n/a	14

* All values, unless specified otherwise, are minimum average roll values as reported by the specified test methods.

** At 200 percent strain.

*** Cohesive bond mode.

**** Federal Test Method Standard

Gasket material shall be neoprene, closed cell medium, 0.25 inch thick, with adhesive on one side, or other gasket material as approved by the liner manufacturer. Metal battens shall be 0.25 inch thick by 2 inches wide stainless steel. Clamps shall be 0.5-inch-wide stainless steel. The HDPE embed channel and welding rod shall have the same properties as the liner. Adhesives shall be approved by the manufacturer and shall consist of material with a life expectancy similar to the liner material. Sealant shall be as recommended by the manufacturer.

Shop drawings shall be furnished to the designer for approval before proceeding with field work. The liner material must be pre-approved by a licensed professional engineer and the New Mexico Environment Department prior to its installation. Items to consider in the shop drawings include, but are not limited to:

- Extent, size and details of the lining.
- Termination and methods of sealing around penetrations.
- Manufacturer's written instructions for the storage, handling, installation, inspections and field splices, seams and joints.

The liner will be factory fabricated into panels as large as is practical for placement. Factory made seams shall be least 80% of the specified sheet strength.

After fabrication, the lining will be packaged for minimum handling in the field. Shipping boxes will be substantial enough to prevent damage to contents.

4. SHIPPING AND STORAGE

Liner material shall be delivered, handled, and stored according to the manufacturer's recommendations. Liner material shall be stored and protected from puncture, dirt, grease, excessive heat, exposure to ultraviolet radiation, or other damage.

5. EARTHWORK

Earthwork (common excavation and earthfill) shall be in accordance with Construction Specification 587.

6. SUBGRADE PREPARATION

Foundation work (diverting surface water, dewatering the construction site, dewatering borrow areas, and foundation preparation) shall be in accordance with Construction Specification 587 and excavated to a depth at least 6 inches below the liner.

The area to be lined shall be compacted to provide a dry, firm unyielding foundation. All banks and fills within the area to be lined must be shaped to the slopes and elevations as shown in the construction drawings.

The supporting surface slopes and foundation to accept the liner shall be stable and free from deviations of more than 3 inches (75 mm). If the liner will too contain animal waste, Subgrade compaction must comply with the NMED requirements, currently set at 90% Standard Proctor Density.

The foundation area for flexible membrane linings shall be very smooth and free of foreign and organic material, rocks larger than $\frac{3}{8}$ inch, any angular rocks, sharp objects, or any other projections that might damage the lining. Coverage by equipment tracks or roller shall provide a smooth surface prior to liner installation. Surface deformations shall not exceed 1 inch.

If the design requires a soil sterilant, it shall be applied to the subgrade at the rate recommended by the manufacturer.

7. LINER PLACEMENT

Installation shall be carried out in a safe manner in such a way that erosion and air and water pollution are minimized.

The liner shall be installed in accordance with the manufacturer's recommendations and by a qualified installer. When the liner will too contain animal waste, the installer shall be approved and certified by the NMED, and NMED shall be notified upon completion of the liner installation. The following shall apply unless the certified installer directs otherwise:

- The subgrade must be inspected and approved by the Engineer and the Installer prior to the placement of the liner.
- The liner shall not be placed during fog, precipitation, in the presence of excessive winds, or in temperatures less than 50 °F.
- The anchor trench in the top berm shall be excavated to the lines, grade, and dimensions shown on the drawings. The trench corners shall be slightly rounded to prevent sharp bends in the liner. The trench shall be a minimum of 12 inches wide, 12 inches deep and shall be set back at least 24 inches from the inside edge of the berm. The top of the lining shall be placed in the anchor trench as per manufacturer's requirements and anchored with compacted backfill. Standing water, mud, and snow shall be removed prior to liner placement and trench backfill.
- The liner shall be installed with a minimum of handling by using a spreader bar assembly attached to a front-end loader, track-hoe bucket, or any other methods recommended by the liner manufacturer.
- The liner shall be carefully spread over the subgrade so that it lies in a relaxed state, conforming to the surface without stretching. Wrinkles shall not exceed 6 inches in height or "fold-over" as the pond fills or backfill is placed in the anchor trenches. Any wrinkles shall be smoothed out.
- The liner shall be placed parallel to the direction of maximum slope. Horizontal laps will not be allowed on slopes. Upslope panels shall overlap downslope to provide a shingle effect for drainage. The contact surfaces of the panels will be wiped clean to remove all dirt, dust, moisture or other foreign materials. All field splices, seams and joints will be inspected and approved prior to placement of any soil cover material.

- During installation, the liner shall be secured with sandbags to protect from wind uplift forces.
- The liner shall be seamed and secured by the end of each workday.
- Construction equipment shall not be allowed to operate directly on the liner except for all-terrain vehicles that produce ground pressures less than 5 pounds per square inch.
- Vents shall be as detailed on the construction drawings.
- Any opening in the liner through which a pipe or other fixture protrudes shall be sealed in accordance with the manufacturer's recommendation.
- Any damage to the liner shall be patched with the lining material itself in accordance with the manufacturer's recommended procedures. Patches shall overlap the main panel by at least 6 inches (150 mm) on all sides.
- If required in the design, placement of cover soil shall commence immediately following approval of the liner placement. The soil material to be used for protective cover shall be free of large clods, sharp rocks, sticks and other objects that would puncture the lining. Equipment may be used to spread the protective soil cover but shall not be allowed to directly contact the liner. The cover soil material shall be placed to the depth as shown on the construction drawings without damage to the liner.

8. SEAMING METHODS AND PROCEDURES

Seaming shall extend to the outside edge of the liner to be placed in the anchor trenches. Seaming shall not be conducted in the presence of excessive winds, moisture, dust, dirt, standing water, or soft subgrade. Seaming procedures shall be in accordance with the liner manufacturer's recommendations.

HDPE Liner

The primary method of seaming for HDPE liners shall be hot wedge welding accomplished by a double-wedge fusion welder that produces a double track weld. Welding equipment and accessories shall be in accordance with the liner's recommendations. The welder shall be calibrated at least once per day at the beginning of each seaming period.

Fillet extrusion welding shall be used for repairs, T-seams, and detail work. Before fusion welding or extrusion welding, all areas to become seam interfaces shall be cleaned of dust and dirt. Seam joining shall not take place unless the sheet is dry and shall not be attempted when the ambient sheet temperature is below 45 °F or above 90 °F. All field splices, seams and joints shall be made in accordance with the manufacturer's recommended technique, using materials furnished for that purpose. Liner panels shall have a minimum overlap of 4 inches for hot shoe welding and 3 inches for extrusion welding.

EPDM Liner

Seams shall be joined using double-faced in-seam tape or a cover strip recommended by the manufacturer. Seaming shall not be performed when the ambient sheet temperature is below 45 °F or above 100 °F.

When installing the in-seam tape, a primer shall be applied to both panels by a scrub pad or other approved method recommended by the manufacturer. The primer shall cover the entire seam overlap. As soon as the primer has "flashed," install the tape on the bottom sheet, remove tape backing, lap the top sheet over the tape, and roll with a sufficient pressure to provide adequate contact between the panels.

When installing the cover strip, a primer shall be applied to both panels by a scrub pad or other approved method recommended by the manufacturer. The top sheet shall be lapped over the bottom sheet and rolled to provide contact between the panels. Additional primer shall be applied to cover the entire seam overlap. As soon as the primer has "flashed," install the cover strip and roll it with sufficient pressure to provide adequate contact between the cover strip and the panels.

9. FIELD TESTING

Field seams shall be nondestructively tested over their full length. Seam testing shall be performed as the work progresses.

HDPE Liner

Air pressure tests shall be performed in accordance with ASTM D 5820 on all double-track fusion seams. The air pressure test equipment and procedures shall conform to this specification and the liner manufacturer's specifications. Seal both ends of the seam to be tested. Insert the pressure needle into the seam's air channel. Pressurize the air channel through the needle to 25 to 30 pounds per square inch. Monitor the pressure for 5 minutes. A loss of pressure in excess of 4 pounds per square inch or a continuous loss of pressure is an indication of a leak. Terminate the test by relieving the pressure from the opposing end of the seam. The pressure shall immediately drop to zero upon opening the opposing end of the seam. If this does not occur, the seam channel shall be checked for obstructions and retested. All defects shall be marked for repair.

Vacuum box tests shall be performed in accordance with ASTM D 5641 on all extrusion welds. The vacuum box equipment and test procedure shall conform to this specification and the liner manufacturer's specifications. Apply soapy water solution to the seam area to be tested. The vacuum box, equipped with a transparent viewing window, shall be centered over the seam area and a vacuum of 3 pounds per square inch shall be drawn. The seam area shall be visually monitored for any soap bubbles for 15 seconds. Seam testing shall continue by overlapping a minimum of 3 inches between each test interval. All defects shall be marked for repair.

If required, seam samples shall be cut at no more than one sample per 500 feet of weld for destructive seam testing. All destructive seam samples shall be tested by a tensiometer in shear and peel modes in accordance with ASTM D 6392 to verify seams meet the requirements of this specification.

The frequency and type of testing shall be in accordance with the manufacturer's recommendations and at other times, at the request of the inspector. All splices, seams, joints and repairs shall be checked during and after installation by use of the testing methods recommended by the manufacturer.

EPDM Liner

Air lance test shall be performed in accordance with ASTM D 4437. The location of all defective seams shall be marked and repaired.

If required, seam samples shall be cut at no more than one sample per 500 feet of seam for destructive seam testing. All destructive seam samples shall be tested by a tensiometer in shear and peel modes in accordance with ASTM D 6392 to verify seams meet the requirements of this specification.

10. REPAIRS

All defective liner areas and failed seams shall be repaired and retested.

All tears, punctures, and material defects in the liner shall be repaired by installing a patch over the defective area. Surfaces of the liner to be patched shall be cleaned before the repair. All patches shall be of the same liner material and extend a minimum of 6 inches beyond the edges of the defect area. All patches shall have rounded corners and shall be seamed to the liner. Holes that are less than 0.25 inch in diameter in the HDPE liner shall be repaired by a bead of extrudent.

Failed seams shall be repaired by installing a cap strip over the entire length of failed seam. The cap strip shall be of the same liner material and shall extend beyond the failed seam a minimum of 6 inches in all directions.

11. MECHANICAL ATTACHMENTS

The liner shall be mechanically attached to pipe, concrete, or steel structures as shown in the drawings and according to the liner manufacturer's specification.

Pipe boots shall be fabricated in the field from the same liner as that shown in the drawings. HDPE boots shall be welded and clamped to polyethylene pipe. Pipe boots shall be clamped to other types of pipe as shown in the drawing, or as recommended by the manufacturer, to provide a leak-free attachment.

Metal battens shall meet the requirements of this specification and shall be installed according to the drawings and the liner manufacturer's specifications. The battens shall be bolted to structural concrete by epoxy coated bolts on 6-inch intervals to create a leak-free connection under submerged conditions. Bolt spacing shall be increased to 12 inches for connections above the fluid level.

HDPE embed channel, if used, shall meet this specification and be installed according to drawings and the liner manufacturer's specification. The embed channel shall be prefabricated to the dimensions as shown in the drawings. All sections of the channel shall be welded to the next section continuously to prevent gaps between sections or pieces of the embed channel before their installation in the concrete forms. All corners shall be miter cut and welded all around.

12. CONCRETE

Concrete shall be in accordance with Construction Specification 587C.

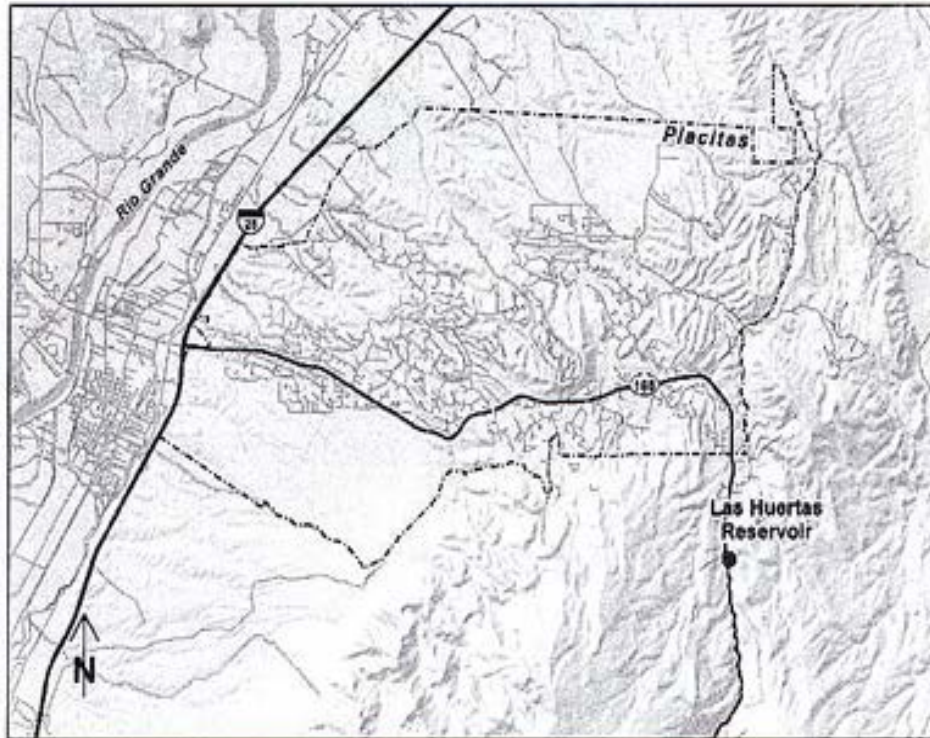
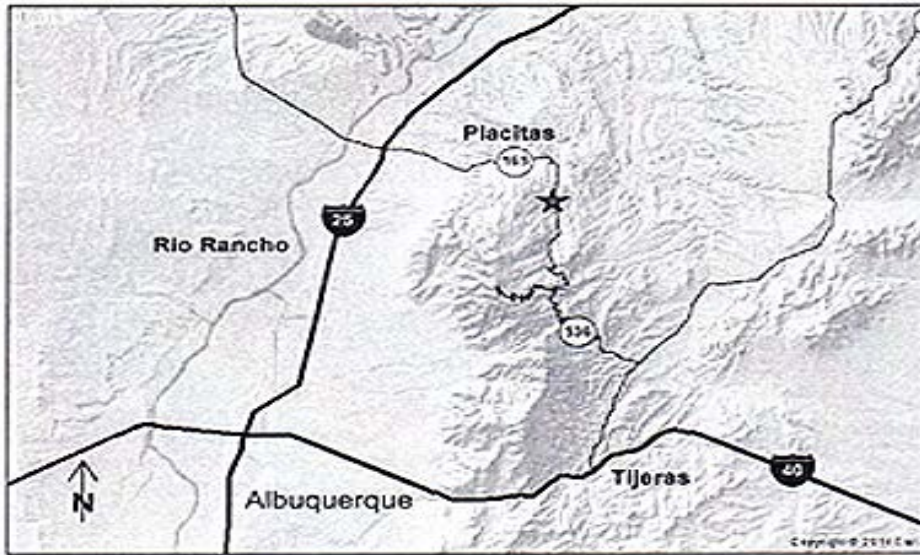
13. CERTIFICATION

Upon completion of liner installation, the installer and contractor shall provide documentation to the Agency and NMED (if the liner will too contain animal waste) certifying the liner meets or exceeds the material specifications and that it was installed in accordance with the manufacturer's recommendations. In addition, the results of the testing program shall be furnished to the Agency and NMED (if appropriate). As-built drawings shall be submitted to the Agency and NMED (if appropriate) within 30 days of completion of construction. The expected service life of the liner is 20 years.

Conservation Practice Job Sheet 521A shall be completed by the certifying NRCS representative and filed in the Conservation Plan folder in front of the completed practice documentation.

14. MEASUREMENT

The quantity of liner shall be determined to the nearest square yard by measuring the installed liner with a calibrated measuring wheel. The total quantity shall include the liner installed in the anchor trench, in areas with double liner, and rub sheets according to the drawings, but shall exclude scrap, waste, overlap, and compensations for expansion and contraction of liner.



Project Vicinity Maps