Bidder's Checklist

Submit this Bidder's Checklist with your Bid documents. Bidders shall complete and submit all documents in the "REQUIRED" column for bids to be considered responsive.

<u>REQUIRED</u>

- □ 1. Proposal and Bid Schedule, pages 9-10 of the Bid Book
- \square 2. Addenda Acknowledgement and All Issued Addenda, page 10 and Addenda
- □ 3. Non-Collusion Declaration, page 11 of the Bid Book
- □ 4. Public Contract Code Section 10285.1 and 10162, page 12 of the Bid Book
- □ 5. Public Contract Code Section 10232, page 13 of the Bid Book
- □ 6. List of Subcontractors, page 14 of the Bid Book
- □ 7. Material Suppliers Information, page 15 of the Bid Book
- □ 8. Qualification Statement, page 16-17 of the Bid Book
- □ 9. Bid Bond, page 18 of the Bid Book
- □ 10. Workers Compensation Certification, page 19 of the Bid Book
- □ 11. Certification Labor Compliance, page 19 of the Bid Book
- □ 12. Indemnity Agreement, page 20-23 of the Bid Book

SUBMITTED BY:

Name of Company	Contact Name		
Business Mailing Address			
Business Physical Address		Contractor's License Number	
Phone Number	Fax Number	E-mail Address	

Documents required on the checklist but not included with your bid may render your bid non-responsive and ineligible for award. Bids received by Mariposa Public Utility District by the scheduled bid opening time will be opened and publicly read but are subject to verification that all the required documents have been submitted. This page is intentionally blank.

Mariposa Public Utility District 2024 MPUD Campbell Way Sewer Main Extension



Mariposa Public Utility District

Bid Book

August 30, 2024

2024 MPUD Campbell Way Sewer Main Extension

Important Dates

Pre-bid meeting – Tuesday, September 17, 2024, at 10 am Bid date – Thursday, September 26, 2024, at 10 am

Scope of Work

The project will improve the Mariposa Public Utility Districts sewer collection system. The construction of the sewer main extension will require but is not limited to furnishing and installing 6-inch Polyvinyl Chloride (PVC) pipe in open trench excavation; manholes, service laterals and cleanouts; all site clearing, existing improvement and utility protection; utility coordination; potholing; excavation; removal and replacement of any existing pipe; confined space entry; pipe, gaskets, and materials: pipe slope anchors; bedding; backfill; compaction; connections to existing to existing sanitary sewer pipe, removal and disposal of trench spoils; surface restoration, pipe testing, complete as specified and as indicated on drawings.

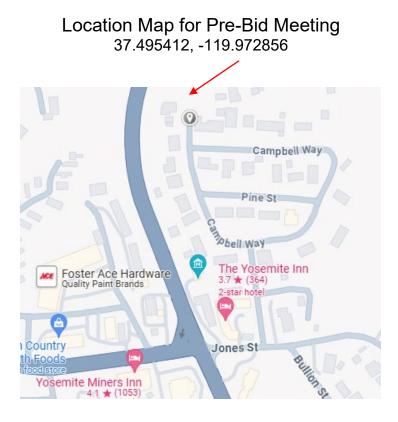
Contents

Bidder's Checklist	1
Bid Book	3
Мар	5
Location Map for Pre-Bid Meeting	5
Notice to Contractors	6
Proposal	9
Bid Schedule	9
Addenda Acknowledgement1	0
Non-Collusion Declaration1	1
Conviction of Offenses1	2
Violation of Law or a Safety Regulation1	2
Air Pollution Control Rules, Regulations, Ordinances and Statues1	3
List of Sub-Contractors	4
Major Material Suppliers' Information1	5
Qualification Statement1	6
Bidder's Bond	8
Worker's Compensation Certification1	9
Certification Labor Compliance1	9
Indemnification and Insurance2	20
Contract Bonds2	24
Construction Performance Bond2	25
Construction Labor and Material Payment Bond2	27
Construction Services Agreement2	9
Scope of Work	51
General Conditions	2
MPUD Standard Specifications4	.1

Мар

Project is in Mariposa, California





Notice to Contractors

The Mariposa Public Utility District (MPUD or District) will receive sealed bids on *Thursday, September 26, 2024, at 10 am* for the 2024 MPUD Campbell Way Sewer Main Extension. The project will consist of work on private property within the MPUD easement, off Campbell Way in Mariposa, California.

Description of Work – The project will improve the Mariposa Public Utility Districts sewer collection system. The construction of the sewer main extension will require but is not limited to furnishing and installing 6-inch Polyvinyl Chloride (PVC) pipe in open trench excavation; manholes, pipe casing, service laterals and cleanouts; all site clearing, existing improvement and utility protection; utility coordination; potholing; excavation; removal and replacement of any existing pipe; confined space entry; pipe, gaskets, and materials: pipe slope anchors; bedding; backfill; compaction; connections to existing sanitary sewer pipe, removal and disposal of trench spoils; surface restoration, pipe testing, complete as specified and as indicated on drawings.

Bids will be received by the Mariposa Public Utility District at 4992 7th Street, Mariposa, CA 95338 and then at said office publicly opened and read aloud. Each bid must be submitted in a sealed envelope, addressed to the Mariposa Public Utility District, 4992 7th Street, (P.O. Box 494), Mariposa, CA 95338.

Each sealed envelope containing a bid must be plainly marked on the outside as:

Bid For

2024 MPUD Campbell Way Sewer Main Extension

If forwarded by mail, the sealed envelope containing the bid must be enclosed in a second envelope addressed to the General Manager at the Mariposa Public Utility District, P.O. Box 494, Mariposa, CA 95338.

All bids shall be made on the required bid form. All blank spaces for bid prices must be filled in (ink or typewritten), and the bid form must be fully completed and executed when submitted. Only one copy of the bid form is required.

The District may waive any informalities or minor defects or reject all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within thirty (30) days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between MPUD and the bidder.

Bidders must satisfy themselves with the accuracy of the estimated quantities in the bid proposal by examination of the site and scope of work. It is the bidder's responsibility to verify project misconceptions.

A notice to proceed shall be issued within five (5) days of the execution of the agreement by the District.

The Contractor shall diligently pursue the work to completion within 30 working days.

Contractors License

Prospective bidders shall be licensed contractors in the State of California and shall be skilled and regularly engaged in the general class or type of work called for under the contract. Each bidder shall have an active California Class A General Engineering Contractor's license at the time of bid opening.

Prevailing Wage

This project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. Pursuant to Section 1770, California Labor Code, the successful bidder shall pay to each worker of the contractor, or any subcontractor, of any tier, engaged in the work, not less than the general prevailing wage rate of per diem wages, regardless of any contractual relationship which may be alleged to exist between the contractor or any subcontractor, or any tier, and such worker. Prevailing wage rate information is also available on the internet at the following website address: http://www.dir.ca.gov/dlsr/PWD.

Department of Industrial Relations pursuant to Labor Code Section 1725.5 – A Contractor shall be registered pursuant to this section to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code or engage in the performance of any public work contract that is subject to the requirements of this chapter. For the purposes of this section, contractor includes a subcontractor as defined by Section 1722.1.

Disadvantaged Business Enterprise (DBE) Program

There are no participation goals for this project.

Bid Bond

A bid guarantee from each bidder that is equivalent to five percent of the bid price. The "bid guarantee" must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified. Bid bonds must be underwritten by an admitted surety and the surety shall comply with the provisions of California Code of Civil Procedure Section 995.630. Bid Bonds shall be accompanied by a certificate of authority as provided for by California Code of Civil Procedure Section 995.640 (b). Example bid bond can be found on page 18.

Pre-Bid Meeting

Each bidder is responsible for attending the pre-bid meeting, inspecting the site and for reading and being thoroughly familiar with the Bid Book. The failure or omission of any

bidder to do any of the foregoing shall in no way relieve any bidder from any obligation in respect to its bid.

A pre-bid meeting will be held on Tuesday, September 17, 2024, at 10 am, on Campbell Way, southwest corner of the project. Pre-bid meeting attendance <u>is mandatory</u>. The project site is located on private property and is only available for viewing at the pre-bid meeting.

<u>Permits</u>

MPUD will secure an encroachment permit from Mariposa County Public Works.

Award of Contract

The District reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the District that such bidder is properly qualified to carry out the obligations of the agreement and to complete the work contemplated therein. A conditional or unqualified bid will not be accepted.

The award will be made within 60-days to the lowest responsive, responsible bidder. The lowest responsive, responsible bidder will be determined by the lowest base bid and an evaluation of their experience.

All applicable laws, ordinances, and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

Mariposa Public Utility District Proposal

Name of Bidder

Business Mailing Address (including city, state, and zip code)

Business Street Address (including city, state, and zip code)

Phone Number

Fax Number

E-mail Address

Contractor License Number

Year established

The work to be completed and referred to herein is:

2024 MPUD Campbell Way Sewer Main Extension

Bid Schedule

Bidder agrees to perform all the work described in the Bid Book for the following unit prices or lump sum of:

ltem No.	Item Description	Unit	Approx. Quantity	Unit Price	Item Amount
1	Mobilization (maximum amount is 10% of the total of items 2 through 11)	Lump Sum	1	\$	\$
2	Sheeting, shoring, bracing and/or sloping of pipeline trenches	Lump Sum	1	\$	\$
3	6-inch PVC pipeline, open cut trench	Linear Foot	382	\$	\$
4	48-inch Manhole	Each	1	\$	\$
5	Short Manhole	Each	1	\$	\$
6	Plug and Abandon Pipe	Each	2	\$	\$

7	Sewer Laterals	Each	4	\$ \$
8	End of main, cleanout, termination location	Each	1	\$ \$
9	HDPE Casing Pipe, spacers, straps, end caps,	Lump Sum	1	\$ \$
10	Contractor Supplied Tree Trimming - remove debris from site	Lump Sum	1	\$ \$
11	Testing – compaction, water and, air test	Lump Sum	1	\$ \$

(Item Nos. 1 through 11) TOTAL BID (numerical) \$____

If the product of a unit price and an estimated quantity does not equal the extended amount stated, the unit price will govern, and the correct product of the unit price and the estimated quantity shall be deemed to be the amount bid.

Amount of bid, written out:

(Dollars)

Addenda Acknowledgement

Any addenda issued by the Owner's Representative during the time of bidding or forming a part of the documents issued to the bidder for preparation of the bid, shall be covered in the bid and shall be a part of the contract. Receipt of all addenda shall be understood as accepted under this section. Bidder acknowledges receipt of the following Addendum(s):

No, dated		, 2024	
No, dated		, 2024	
Construction Company Name:			
License Class:	License No.:	PWCR (DIR) No	
Signature of Bidder:			
Name of Bidder (Print):			

Non-Collusion Declaration (Public Contract Code Section 7106)

of

The undersigned declares:

I am the		
the party	making the foregoing bid.	

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration is executed on:

Date

County

State

Ву _____

Conviction of Offenses (Public Contract Code Section 10285.1 Statement)

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has ______, has not ______ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any State or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100. The term "bidder" is understood to include any partner, member, officer, director, responsible manager officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a checkmark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal.

Violation of Law or a Safety Regulation (Public Contract Code Section 10162 Questionnaire)

In accordance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the bidder who has a proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

 \Box Yes or \Box No

If the answer is yes, explain the circumstances in the following space:

NOTE: The above Questionnaire is part of the proposal. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

"I declare under penalty of perjury under the laws of the State of California, the foregoing is true and correct."

Signature of Bidder

Date

Air Pollution Control Rules, Regulations, Ordinances and Statues (Public Contract Code Section 10232 Statement)

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Relations Board.

"I declare under penalty of perjury under the laws of the State of California, the foregoing is true and correct."

Signature of Bidder

Date

List of Sub-Contractors

Each bidder shall list below the name and business address of each subcontractor who will perform work or render service under this contract in or about the construction of the improvement, or a subcontractor licensed by the State of California, who specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans, in excess of one-half of one percent of the total amount shown in the proposal, and shall also list the portion of the work which will be done by such subcontractor.

1		Portion of Work
	Name of Contractor	
	Mailing Address	
	Contractor's License Number	
	Public Works Contractor Registration Number	

2		Portion of Work
	Name of Contractor	
	Mailing Address	
	Contractor's License Number	
	Public Works Contractor Registration Number	

3		Portion of Work
	Name of Contractor	
	Mailing Address	
	Contractor's License Number	
	Public Works Contractor Registration Number	

4		Portion of Work
	Name of Contractor	
	Mailing Address	
	Contractor's License Number	
	Public Works Contractor Registration Number	

Major Material Suppliers' Information

The bidder shall indicate opposite each item of equipment or material listed below the name of the manufacturer or supplier of the equipment or material proposed to be furnished under the bid.

	Equipment/Material	Manufacturer/Supplier
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Awarding of a contract under this bid will not imply approval by the Owner of the manufacturers or supplies listed by the bidder. No substitution will be permitted after the award of contract unless equipment or material of the listed manufacturer or supplier is unable to meet the specifications.

Qualification Statement

PROJECT: Mariposa Public Utility District 2024 MPUD Campbell Way Sewer Main Extension State of California, County of Mariposa

TO: Mariposa Public Utility District

To be Executed by the Bidder and Submitted with the Bid

Name of Bidder

1. EXPERIENCE AND REFERENCES

List three (3) or more past or current projects of similar size and scope to this project by completing the table below:

Past or Current Project Name and Location	Project Description	Owner	Contract Amount and Completion Date	Reference Contact Person (name and phone number)
			\$	
			\$	
			\$	
			\$	

2. CONTRACTOR INFORMATION (please answer the following questions completely using a separate sheet of paper if necessary.)

- a) List name, address, and phone number of bonding company used by your organization.
- b) List name, address, and phone number of a banking institution familiar with your organization.
- c) State whether your organization has been subject of bankruptcy, failed business, failed to complete a contract, or removed from a job by an awarding body.
- d) Describe any contract your organization failed to complete or job from which your company was removed by an awarding body.
- e) Describe any litigation your organization has been named a party in as the result of any award of a public contract.
- f) Describe any False Claims Act investigations which have been conducted as the result of any award of a public contract to your organization.

Signature of Bidder

Date

Bidder's Bond

We, _____

Principal and ______as Surety are bound unto the Mariposa Public Utility District, hereafter referred to as "Obligee", in the penal sum of five (5) percent of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for:

2024 MPUD Campbell Way Sewer Main Extension

for which bids are to be opened at _____on ____. NOW, THEREFORE, if the Principal is awarded the contract and, within the time and manner required under the Specifications, after the prescribed forms are presented for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files three bonds with the Obligee, one to guarantee faithful performance of the contract, second to guarantee payment for labor and materials as provided by law, and third to be a maintenance warranty bond, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event a suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Date: ______ , 20 _____

Principal

as

Surety

Attorney-in-Fact

Worker's Compensation Certification

State of California County of _____

The undersigned is aware of the provisions of Section 3700 of the Labor Code of the State of California which require every employer to be insured against liability of worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and the undersigned will comply with such provisions, and will require all subcontractors to comply with such provisions, before commencing the performance of the work of this Contract.

Signature	of	Bidder
-----------	----	--------

Date

Date

Title

Certification Labor Compliance

The undersigned certifies that, in performance of the contract, the Contractor will comply with the labor requirements described in the bid documents, pages 6 and 8 in addition to other legal requirements.

Name of Contractor or Subcontractor

Certified By (Printed Name)

Signature

Indemnification and Insurance

The Contractor shall indemnify, defend and hold harmless the Mariposa Public Utility District (District) and all its elected and appointed officials, employees, agents and volunteers, including its consultants connected with the work, as well as all property owners that have granted construction easements to the District for this project, from all claims, suits or actions of every kind and description including costs and attorneys' fees, brought forth, or on account of, injuries to or death of any person including, but not limited to, workmen and the public, or damage to property arising out of the Contractor's performance of the work under the contract, except as otherwise provided by statute. The duty of the Contractor to indemnify and hold harmless includes the duties as set forth in Section 2778 of the Civil Code.

The Contractor waives any and all rights to any type of express or implied indemnity against the District, its elected and appointed officials, employees, agents and volunteers, it is the intent of the parties that the Contractor will indemnify, defend, and hold harmless the District, its elected and appointed officials, employees, agents and volunteers from any and all claims, suits or actions as set forth above regardless of part of the District, the Contractor, the subcontractor or employee of any of these.

The Contractor shall indemnify, hold harmless, and defend the District against any and all actions, proceedings, penalties or claims arising out of the Contractor's failure to comply with the federal immigration laws.

INSURANCE

Before the Contractor shall commence work under this contract and before any subcontractor shall commence work under any subcontract executed pursuant to this contract, the Contractor shall deposit or cause subcontractor to deposit a policy or binder evidencing each insurance required by this contract with the District.

<u>Commercial General Liability Insurance</u>, written on an "occurrence" basis, which shall provide coverage for bodily injury, death and property damage resulting from operations, liability for slander, false arrest and invasion of privacy, blanket contractual liability, broad endorsement, and completed operations, personal and advertising liability, with limits of not less than \$2,000,000 general aggregate and \$2,000,000 each occurrence, subject to a deductible of not more that \$1,000 payable by Contractor.

<u>Business Automobile Liability Insurance</u> with limits of not less than \$2,000,000 each occurrence including coverage for owned, non-owned and hired vehicles, subject to a deductible of not more than \$1,000 payable by Contractor.

<u>Workers' Compensation Employers' Liability</u> limits not less than \$2,000,000 per disease and \$2,000,000 aggregate. Contractor's Workers' Compensation Insurance policy shall contain a Waiver of Subrogation against the Mariposa Public Utility District, its Board members, officers, directors, officials, agents, employees and volunteers. In the event the Contractor is self-insured, it shall furnish a Certificate of Permission to Self-Insure signed by the Department of Industrial Relations Administration of Self-Insurance, State of California. Any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to the Owner Indemnities as Additional insured. The requirements for coverage and limits shall be the greater of either the minimum coverage and limits specified in the Agreement or the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured.

Insurance policies for this Project shall contain an endorsement containing the following terms:

Owner Indemnities shall be named as Additional Insured, but only with respect to liability arising out of the activities of the names insured, and there shall be a waiver of subrogation as to each named and Additional Insured. The Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Owner has received a waiver of subrogation endorsement from the insured.

The policies shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the company's liability.

Written notice of cancellation, non-renewal or of any material change in the policies shall be mailed to the Mariposa Public Utility District thirty (30) days in advance of the effective date thereof.

Contractor insurance shall be primary insurance as to Owner and no other insurance or self-insured retention carried or held by any named or Additional Insureds other than Contractor shall be called upon to contribute to a loss covered by insurance for the named insured.

Certificates of Insurance and Endorsements shall have clearly typed thereon the Project Name, shall clearly describe the coverage and shall contain a provision requiring the mailing of written notice of cancellation described above. Contractor shall furnish the Owner with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage by this clause. All certificates and endorsements are to be reviewed and approved by the Owner before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The Owner reserves the right to require complete, certified copies of all insurance policies, including endorsements required by these specifications, at any time.

All policies of insurance shall be placed with insurers acceptable to the Owner. The insurance underwriter(s) must be duly licensed to do business in the State of California and (other than for Workers' Compensation) must have an A.M. Best Company rating of [A-, VII] or better. Required minimum amounts of insurance may be increased should conditions of work, in the opinion of Owner, warrant such increase, Contractor shall increase required insurance amounts upon direction by Owner.

The insurance coverage limits may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain, or shall be endorsed to contain, a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of Owner and Additional Insureds, to the extent required by this Agreement, before the Owner's insurance or self-insurance may be called upon to protect Owner as named insured.

All Self-Insured Retentions (SIR) must be disclosed to the Owner for approval and shall not reduce the limits of liability coverage. Policies containing and SIR provision shall provide that the SIR may be satisfied by either the named Contractor/named insured or Owner.

Contractor agrees to include with all subcontractors that same requirements and provisions of this Agreement that is required of Contractor including, without limitation, the indemnity and insurance requirements to the extent they apply to the scope of the subcontractor's work. Subcontractors hired by Contractor shall agree to be bound to Owner under this Contract and its accompanying documents. Subcontractors shall further agree to include these same provisions with any lower tier subcontractors. A copy of the indemnity and insurance provisions of this Agreement will be furnished to the subcontractor upon request. Contractor shall require all subcontractors to provide a valid Certificate of Insurance, and the required endorsements included in the subcontract agreement and will provide proof of compliance to the Owner prior to commencement of any work by the subcontractor.

Special Risks or Circumstances: District reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Cancellation of Insurance. Each policy of insurance required by this Contract shall contain a provision requiring that written notice be given to the District at least thirty (30) days prior to cancellation or reduction of coverage. Should any such notice be given before completion of the work hereunder or should any such policy be canceled before completion of said work, the District may renew said policy or procedure a new policy conforming therewith and deduct the cost thereof from any amounts due to the Contractor.

Insurance coverage in the minimum amounts set forth herein shall not be constructed to relieve the Contractor for liability in excess of such coverage, nor shall it preclude the District from taking such other actions as are available to it under any other provision of this Contract or otherwise in law.

ACCEPTED:

Name of Contractor	Date
Ву	
Witness (if corporation)	Seal
Ву	

ATTEST:

By

Address

Contract Bonds

The successful bidder shall furnish two bonds. The Performance Bond shall secure the payment of claims of laborers, mechanics or material persons employed on the work under the Contract. The Payment Bond shall guarantee the faithful performance of the Contract.

The performance and payment bonds shall each be in a sum equal to at least 100% of the contract price. An example of each bond is included. This project is not federally funded. The minimum requirements are as follows:

Performance Bond – a performance bond on the part of the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a Contract to secure fulfillment of all the Contractor's requirements under such Contract.

Payment Bond – a payment bond on the part of the Contractor for 100 percent 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.

Construction Performance Bond

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the Mariposa Public Utility District, a political subdivision of the California State of California (Owner) has awarded to:

______as Principal a Construction Services Agreement, dated the _____day of______, 20_____titled the 2024 MPUD Campbell Way Sewer Main Extension project in the amount of \$______, which Agreement is by this reference made a part hereof, for the work described as follows:

AND WHEREAS, Principal is required to furnish a bond in connection with the Agreement, guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Principal and _______as Surety are held and firmly bound unto Owner in the sum of 100% of the contract sum to be paid to Owner or its successors and assigns: for which payment well and truly to be made, 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 if Principal, or its heirs, executors, administrators, successors, or assigns approved by Owner, shall promptly and faithfully perform the covenants, conditions, and agreements of the Agreement during the original term and any extensions thereof as may be granted by Owner, with or without notice to Surety, and during the period of any guarantees or warranties required under the Agreement, and shall also promptly and faithfully perform all the covenants, conditions and agreements of any alteration of the Agreement made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect and hold harmless Owner as stipulated in the Agreement, then this obligation shall become and be null and void; otherwise be and remain in full force and effect.

No extension of time, change, alteration, modification, or addition to the Agreement, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

Whenever Principal shall be and declared by Owner in default under the Agreement, Surety shall promptly remedy the default, or shall promptly:

- Undertake through its agents or independent contractors, reasonably acceptable to Owner, to complete the Agreement in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Agreement including, without limitation, all obligations with respect to warranties, guarantees, indemnities, and the payment of liquidated damages; or
- Obtain a bid or bids completing the Agreement in accordance with its terms and conditions, and, upon determination by Owner of the lowest responsible bidder, reasonably acceptable to Owner, arrange for a contract between such bidder and Owner and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum, and to pay and perform all obligations of Principal under the Agreement including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages; but, in any event, Surety's total obligations hereunder shall not exceed the amount set forth in the third paragraph hereof. The term "balance of the Contract

Sum," as used in this paragraph, shall mean the total amount payable by Owner to the Principal under the Agreement and any amendments thereto, less the amount Owner paid to Principal.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Agreement, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing Owner's rights against the others. Surety may not use Contractor to complete the Agreement absent Owner's written consent.

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

Surety may join in any proceedings brought under the Agreement and shall be bound by any judgement.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below. IN WITNESS WHEREOF, we have hereunto set our hands this _____day of _____, 20____.

CONTRACTOR AS PRINCIPAL SURETY Company: (Corp. Seal) Company: (Corp. Seal) Signature Signature Name Name Title Title Street Address Street Address City, State, Zip Code City, State, Zip Code

Construction Labor and Material Payment Bond

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the **Mariposa Public Utility District**, a political subdivision of the California State of California (**Owner**) has awarded to:

_____as Principal a Construction Services Agreement, dated the _____day of _______ 20_____titled the 2024 MPUD Campbell Way Sewer Main Extension project in the amount of \$______, which Agreement is by this reference made a part hereof, for the work described as follows:

AND WHEREAS, Principal is required to furnish a bond in connection with the Agreement to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;

NOW, THEREFORE, we, the undersigned Principal and _______as Surety, are held and firmly bound unto Owner in the sum of 100% OF THE CONTRACT SUM (\$______), for which payment well and truly to be made 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 if Principal, or its heirs, executors, administrators, successors, or assigns approved by Owner, or its subcontractors shall fail to pay any of the persons named in California Civil Code Section 9100, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Agreement, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to California Unemployment Insurance Code Section 13020 with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, plus reasonable attorneys' fees, otherwise the above obligation shall become and be null and void.

The bond shall inure to the benefit of the persons named in California Civil Code Section 9100, as to give a right of action to such persons or their assigns in any suit brought upon this bond. The intent of this bond is to comply with the California Mechanic's Lien Law.

Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Agreement, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Agreement, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Agreement, or to the work to be performed thereunder.

Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with the Agreement; and suit may be brought against Surety and such other sureties, jointly and severely, or against any one or more of the, or against less than all of them without impairing Owner's rights against the other.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below. IN WITNESS WHEREOF, we have hereunto set our hands this _____day of ______, 20_____.

CONTRACTOR AS PRINCIPAL	S PRINCIPAL SURETY	
Company: (Corp. Seal)	Company: (Corp. Seal)	
Signature	Signature	
Name	Name	
Name	Name	
Title	Title	
Street Address	Street Address	
City, State, Zip Code	City, State, Zip Code	

Mariposa Public Utility District (owner) P.O. Box 494, 4992 7th Street Mariposa, California 95338

Construction Services Agreement 2024 MPUD Campbell Way Sewer Main Extension

This agreement made the _____ day of _____ 2024, by and between the Mariposa Public Utility District, hereinafter called the "Owner" and ______ doing business as a corporation bersinefter called "Contractor"

___doing business as a corporation hereinafter called "Contractor".

Witnesseth: That for and in consideration of the payments and agreements hereinafter mentioned:

- 1. The Contractor will commence and complete the construction of the 2024 MPUD Campbell Way Sewer Main Extension Project.
- 2. The Contractor will furnish all materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the project described herein.
- The Contractor will commence the work required by the contract documents within ten (10) calendar days after the date of the notice to proceed and will complete the same by ______.
- 4. The Contractor agrees to perform all the work described in the contract documents and comply with the terms therein for the sum of \$______ or as shown in the Bid Schedule.
- 5. The term "Contract documents" means and includes the following: Bidder's Check List, Bid Book, Notice to Contractors, Proposal, Bid Schedule, Addenda Acknowledgement, Addenda, Non-Collusion Declaration, Public Contract Code 10285.1, 10162 and 10232, List of Sub-Contractors, Major Material Suppliers' Information, Qualification Statement, Bidder's Bond, Certification Labor Compliance, Indemnification and Insurance, Scope of Work, General Conditions and MPUD's Standard Specifications.
- 6. The Owner will pay the Contractor in the manner and at such times set forth in the General Conditions such amounts as required by the contract documents.
- 7. Liquidated Damage Amounts As liquidated damages for delay, the Contractor

shall pay the Owner five hundred dollars (\$500.00) for each day that expires after the time specified herein for Contractor to achieve Final Completion of the entire work, until achieved.

8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning a contractor may be referred to the register, Contractors' State License Board, 3132 Bradshaw Road, Post Office Box 2600, Sacramento, California 95826.

In witness whereof, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement which shall be deemed an original on the date first above written.

OWNER:

By

Date

Name (please type)

Board Chairman Title

ATTEST:

By

Date

Name (please type)

Seal

Title

Scope of Work

The project will improve the Mariposa Public Utility Districts sewer collection system. The construction of the sewer main extension will require but is not limited to furnishing and installing 6-inch Polyvinyl Chloride (PVC) pipe in open trench excavation; manholes, pipe casing, service laterals and cleanouts; all site clearing, existing improvement and utility protection; utility coordination; potholing; excavation; removal and replacement of any existing pipe; confined space entry; pipe, gaskets, and materials: pipe slope anchors; bedding; backfill; compaction; connections to existing sanitary sewer pipe, removal and disposal of trench spoils; surface restoration, pipe testing, complete as specified and as indicated on drawings.

General Conditions

Measurement and Payment

<u>Description of Bid Items</u> – All estimated quantities stipulated in the Bid Forms or other Contract Documents are approximate and are to be used only as a basis for estimating 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. The Contractor agrees that he/she will make no claim for damages, anticipated profits, or otherwise on account of any differences between the amounts of work actually performed and materials actually furnished and the estimated amounts therefore as long as the difference is not in excess of 25% of the stated quantities on the Bid Forms.

Item No. 1 – Mobilization and Demobilization (Lump Sum) – Shall include preconstruction condition assessments, schedules, move in of equipment, tools, supplies, materials, and personnel to the job site; installing temporary power, water, sanitary and other utilities; developing required safety plans; preparing required submittals; obtaining all required bonds, insurance, and permits; daily clean up of project site; and move out and final cleanup of the job site after the project is completed and accepted by the Owner.

Item No. 2 – Sheeting, shoring, bracing and/or sloping of pipeline trenches (Lump Sum) - Including but not limited to: sheeting, shoring, bracing, and/or sloping of open cut excavations associated with pipe trenches as applicable; inclusive of all construction conforming to applicable safety orders, including any necessary subsurface investigations, preparing and submitting shoring designs, labor, tools, materials, equipment, power, and fuel for doing all required work, complete as specified and as indicated on the drawings.

Item No. 3 – 6-inch PVC pipeline, Open Cut (Per Linear Foot) – Furnish and install pipe (ASTM D3034 SDR-35 Gasketed Integral Bell PVC Gravity Sewer Pipe) in open cut trench excavations, including but not limited to all site clearing, existing improvement protection; approved erosion control and Best Management Practices (BMP's) Plan for sedimentation and siltation control in accordance with local and state Construction Standards, excavation; gaskets and materials; potholing; bedding; backfill; compaction; trench dam where appropriate; confined space entry; testing, complete as specified and as indicated on drawings. Pipe showing signs of sunburn and/or discoloration will not be accepted.

Item No. 4 – Install a 48-inch Manhole (Unit Price, Each). Payment for standard manholes including but not limited to all pre-cast concrete manhole sections, cast in place concrete, manhole frame, eccentric cone, polypropylene steps and covers, forming the manhole channels, metal castings, inner manhole lid (as required), protective coating, excavation bedding, backfill, compaction, confined space entry, dust control, and removal and disposal of excavation spoils. See MPUD Standard Drawing No. 5 Precast Manhole

Installation and Standard Drawing No. 6 Cast Iron Manhole Frame and Cover.

Item No. 5 – Install a Short Manhole (Unit Price, Each) - Payment for short manhole including but not limited to: all pre-cast concrete manhole sections, cast in place concrete, manhole frame, and covers, forming the manhole channels, metal castings, inner manhole lid (as required), protective coating, excavation bedding, backfill, compaction, confined space entry, dust control, and removal and disposal of excavation spoils.

Item No. 6 – Plug and Abandon Pipe (Unit Price, Each) - Plug and abandon pipe in place at locations shown on the drawings and shall include potholing, trenching, excavation, plugging, bedding and backfill. The unit price for all work included in this item is per pipe plugged and abandoned.

Item No. 7 – Sewer Laterals (Unit Price, Each) – Furnish and install 4-inch SDR-35 pipe, wye ,threated plug and non-traffic rated utility box marked sewer for sewer laterals in open cut trench excavations, including but not limited to all site clearing, existing improvement protection; excavation; pipe, fittings, and materials; potholing; bedding; backfill; compaction; confined space entry; removal and dispose of trench spoils; surface restoration, testing, complete as specified and as indicated on drawings. See MPUD Standard Drawing No. 8 House Lateral Cleanout.

Item No. 8 – End of Main Sewer Cleanout (Unit Price, Each) – Furnish and install cleanout pipe, fittings and utility box in open cut trench excavations, including but not limited to all site clearing, existing improvement protection; excavation; pipe, gaskets, and materials; potholing; bedding; backfill; compaction; confined space entry; removal and disposal of trench spoils; surface restoration, testing, complete as specified and as indicated on drawings. See MPUD Standard Drawing No. 7 Sewer Cleanout (6" or 8" Main).

Item No. 9 – Pipe Casing (Linear Foot) – Furnish and install 14-inch HDPE casing pipe, spacers, straps, fittings, and end caps to provide a watertight seal for approximately 50-feet of 6-inch sewer main.

Item No. 10 – Contractor Supplied Tree Trimming (Lump Sum) - Trim branches from existing trees to allow for equipment access including but not limited to removal and disposal of tree vegetation, equipment required to perform task.

Item No. 11 – Contractor Supplied Material Testing (Lump Sum) – Compaction, water and mandrel testing per MPUD's Standard Specifications.

Beginning of Work

The Contractor shall begin work within ten (10) calendar days after the date on the "Notice to Proceed", issued by the General Manager. If work is not started within this period, the first working day charged will be the 11th calendar day after the date on the Notice to Proceed.

No work for which a permit is required shall commence prior to the insurance of that

permit.

Temporary Suspension of Work

Mariposa County is always subject to highly variable climatic conditions during the year. Heavy precipitation and the rate and level of water flow through a construction worksite can prevent or adversely affect work progress, damage work in progress, create hazardous conditions for workmen or motorists, or result in excessive water pollution during certain stages of the work. As a result, construction projects may be subject to extended and frequent work suspensions to accommodate changing water conditions and due to weather conditions, which may adversely affect the work.

Since such work suspensions and delays can reasonably be anticipated during construction, no additional payment will be made for such suspensions or delays.

Time of Completion

Beginning on the first working day, said work shall be diligently prosecuted to completion before the expiration of: **30 working days**

Liquidated Damages

The Contractor shall pay liquidated damages to the Mariposa Public Utility District in the sum of five hundred dollars (\$500.00) per day for every calendar days delay in finishing the work in excess of the number of working days prescribed above.

Termination of Control

If the Contractor at any time during the progress of the work refuses or neglects without fault of the County or its agent to supply sufficient materials of proper quality, appropriate equipment, a sufficient workforce, or in any other respect fails to prosecute the work with the diligence and force specified by the contract sufficient to complete this agreement within the time limit herein or lawful extension thereof for a period of more than ten (10) days after having been notified in writing by the District to furnish the same, the District may furnish materials and workmen to finish the work and deduct the reasonable expenses thereof from the contract price.

Payment Payment

Payment shall be made to the Contractor within 30-days of project acceptance. MPUD shall hold retainage (5%) from the prime Contractor.

By submission of this bid, each bidder certifies, and in the case of a joint bid each part thereto certifies as to its own organization, that this bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this bid with any other bidder or with any competitor.

If bidder is a corporation, the legal name of the corporation shall be set forth above together with the seal and signature of the officer or officers authorized to sign contracts on behalf of the corporation; if bidder is a co-partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnership; and if bidder is an individual, his/her signature

shall be placed above. If signature is by an agent, other than an officer of a corporation or member of a partnership, a Power of Attorney must be on file with the District prior to opening bids or submitted with the bid; otherwise, the bid will be disregarded as irregular and unauthorized.

The bidder hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the project within 30 working days. Bidder further agrees to pay as liquidated damages, the sum of \$1,000.00 for each consecutive calendar day thereafter work is not completed.

Preservation of Property

The Contractor shall make a thorough investigation of the job site and size equipment accordingly. The Contractor shall select equipment to avoid damaging existing facilities, which include, but are not limited to street paving, traffic controls, sidewalks, curbs and gutters, etc. The Contractor at no cost to the District shall restore any damage caused by oversized or not suitable equipment.

Staking

The Contractor shall be responsible for providing construction staking at no additional cost to the Owner. The Contractor shall assume full responsibility for dimensions and elevations measured from the construction stakes. The Contractor shall protect and maintain benchmarks, monuments, or other established points and if disturbed or destroyed, shall replace items at no cost to the Owner.

Potholing

The Contractor shall be required to pothole all utilities by hand digging or core drilling and vacuum methods. The Contractor shall pothole as necessary to determine the exact locations of pipes in critical situations prior to or during construction.

Dust Control

All exposed and/or disturbed soil created by construction activities shall be watered down or suppressed during construction operations to reduce the generation of dust and other particulate matter. All stockpiles of debris, soil, sand, or other materials shall be protected from wind erosion.

Control/Disposal of Rubbish and Debris:

The Contractor shall provide for on-site storage of all solid waste generated during construction and operation of the project. All solid waste shall be placed in trash bins to maintain the site in a safe and attractive condition. Solid waste which cannot be contained in trash bins on-site shall be removed from the site on a weekly basis.

Hours of Work

Construction activities occurring outdoors shall not commence prior to the hours of 7:00 a.m. Monday through Friday, and 8:00 a.m. on Saturdays. All construction activities occurring outdoors shall cease by sunset Monday through Saturday. No outdoor construction shall be permitted on Sundays or Legal Holidays. Inspections for work

during the day other than Monday through Friday 7:00 a.m. to 5:00 p.m. will be at the Contractor's expense.

Construction Water

Construction water will be provided by the District and is available from ONLY District authorized hydrants that are supplied with a water meter and backflow prevention assembly. Contact the administrative office at 209-966-2515 for authorization and a key. Hydrant water is not available at the construction site.

<u>Clean Up</u>

Upon completion and acceptance by Owner, remove all materials, equipment and debris occasioned by this Work and leave the job site in a clean and presentable condition. Perform all such clean-up to the approval of the Owner's Representative.

<u>Materials</u>

All materials, parts and equipment furnished by the Contractor for the construction of this project shall be new, of a high grade and free from defects. Workmanship shall follow generally accepted standards for the type of work performed.

Other Work By Owner

The Owner reserves the right to perform extra work with its own force or contract with any person or firm other than the contractor to perform extra work. The Contractor shall not be entitled to damages or anticipated profits on any portion of work performed by the Owner or Owner's contract with other persons or firms.

Mobilization

The Contractor shall include in the bid all costs for mobilizing the construction equipment and appurtenances including, but not limited to, all costs for insurance, bonds, permits required to perform all work in accordance with the contract documents, plans and specifications. Payment for "Mobilization" shall be lump sum (maximum amount is 10% Items 2-11, Bid Book, page 9 and 10 of this document).

Public Convenience and Safety

Construction materials may not be stored in streets, roads, or highways without obtaining the approval of the appropriate agency.

Traffic and Access

The Contractor's operations shall cause no unnecessary inconvenience. The access rights of the public shall be always considered. Traffic control on ALL public roadways, including State highways, shall conform to Caltrans Manual of Traffic Control, latest version, and section 12 of the Caltrans standard specifications.

No open trenches shall be allowed to be left uncovered during hours of non-construction activity. Trenches not ready for pipe installation and backfill at the end of the workday

must be covered with appropriate trench plates and barricaded if necessary to protect the public.

The Contractor shall include all costs for the above in the various bid items, and no separate payment will be made, therefore.

Protection and Restoration of Existing Improvements

The Contractor shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.

Unless otherwise provided, the Contractor shall repair or replace all existing improvements (e.g., driveways, fences, signs, utilities, street surfaces, structures, etc.) damaged or removed as a result of his/her operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be included in the various bid items, and no separate payment will be made, therefore.

Worker Health and Safety

The Contractor is required to have a Worker Health and Safety Plan prepared in compliance with Cal-OSHA requirements 8CCR5192. The plan must be submitted before the notice to proceed is issued by the Owner.

The Worker Health and Safety Plan must include provisions to address the potential for worker exposure to soil contamination from hydrocarbons. The potential of soil hydrocarbon contamination exists in construction areas adjacent to known historic underground gasoline tank failures. Actual contamination of shallow soils in the work area is unknown.

Environmental Requirements

When constructing a project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental constraints:

Wetlands-- When disposing of excess, spoils, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.

Floodplains-- When disposing excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert 100-year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps.

Historic Preservation-- Any excavation by the Contractor that uncovers an historical or archaeological artifact shall be immediately reported to the Owner and a representative of USDA. Construction shall be temporarily halted pending the notification process and further directions issued by USDA after consultation with the State Historic Preservation Officer (SHPO).

Endangered Species-- Contractor shall comply with the Endangered Species Act, which

provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of the Contractor, the Contractor will immediately report this evidence to the Owner and a representative of USDA. Construction shall be temporarily halted pending the notification process and further directions issued by USDA after consultation with the U.S. Fish and Wildlife Service.

Supervision by Contractor

The Contractor will supervise and direct the work. He will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor will employ and maintain on the project site a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be always present on the site as required to perform adequate supervision and coordination of the work.

Contract Change Orders

All changes which affect the cost or time of the construction of the project must be authorized by means of a change order. The change order will include extra work, work for which quantities have been altered from those shown in the bid schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bid schedule because of final measurements. All changes should be recorded in a change order as they occur. Each change order must contain complete and detailed justification for all items addressed by the change order.

The Contractor shall proceed with the performance of any changes in the work so ordered by the Owner unless the Contractor believes that such field order entitles the Contractor to a change in contract price or time, or both, in which event the Contractor shall give the engineer written notice thereof within seven (7) days after the receipt of the ordered change. Thereafter, the Contractor shall document the basis for the change in contract price or time within thirty (30) days. The Contractor shall not make such changes pending the receipt of an executed change order or further instruction from the Owner.

California Requirements

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works Contract or the Subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

Unless otherwise indicated in the Bid Book, all utility lines, conduits, wires, or structures shall be maintained by the Contractor and shall not be disturbed, disconnected, or damaged by him/her during the progress of the work, provided, that should the Contractor in the performance of the work disturb, disconnect, or damage any of the above, all expenses arising from such disturbance or in the replacement or repair thereof shall be borne by the Contractor. However, in accordance with Section 4215 of the California Government Code, the Contractor shall be compensated for all costs of locating and repairing damage to main or trunkline utility facilities located on the work site and for costs of operating equipment on the work site necessarily idled during such work where the Contractor has exercised reasonable care in removing or relocating utility facilities which are inaccurately indicated in the Bid Book.

By signing this Contract the Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq), which prohibits discrimination on the basis of disability as well as all applicable regulations and guidelines issued pursuant to ADA; The Civil Rights Act of 1964, as amended, 42 U.S.C2000d (1988) et seq.; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794 (1989); Federal Water Pollution Control Act Amendments of 1972, Pub.L. No. 92-500, 86 Stat 816; and the Age Discrimination Act of 1975, as amended, 42 U.S.C. (1994); together with all applicable regulations and guidelines adopted to implement same (collectively, the "Anti-Discrimination Laws").

The Contractor and Subcontractors shall not deny the Contractor's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age or sex. The Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discriminations.

The Contractor and subcontractors hereby certify, under penalty of perjury under the laws of the State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 et seq) and will provide a drug-free workplace by doing all the following:

Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors or subcontractors for violations, as required by Government Code Section 8355(a).

Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(b) to inform employees, contractors, and subcontractors about all of the following:

- 1. The dangers of drug abuse in the workplace.
- 2. The Local Agency's policy of maintaining a drug-free workplace.

3. Any available counseling, rehabilitation and employee assistance programs and violations.

4. Provide as required by Government Code Section 8355(c), that every employee, contractor and subcontractor who works under this Contract:

- (a) Will receive a copy of the Local Agency's drug-free policy statement, and
- (b) Will agree to abide by the terms of the Local Agency's conditions of employment, contract or subcontract.

<u>Gratuities</u>

If the Owner finds after a notice and hearing that the Contractor, or any of the Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of the Owner, State of California or the United States of America in an attempt to secure this contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this contract, Owner may, by written notice to the Contractor, terminate the contract. The Owner may also pursue other rights and remedies that the law or this contract provides. However, the existence of the facts on which the Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of the contract. In the event the contract is terminated, the Owner may pursue the same remedies against the Contractor as it could pursue in the event of a breach of the contract by the Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, the Owner may pursue exemplary damages in an amount (as determined by the Owner) which shall not be less than three nor more than ten times the costs the Contractor incurs in providing any such gratuities to any such officer or employee.

Material Submittals

The Contractor shall provide product cut sheets to the District for approval prior to beginning work.

MPUD Standard Specifications

SECTION 4 - TRENCHING AND BACKFILLING

4.01 <u>Work Included:</u>

- A. Excavate trenches for utilities.
- B. Shoring and bracing of utility trenches.
- C. Prepare the trench bed to receive utilities.
- D. Backfill and compact utility trenches using select and common fill materials.
- E. Compaction requirements.

4.02 <u>References:</u>

- A. ANSI/ASTM Cl 36 Sieve Analysis of Fine and Coarse Aggregates.
- ANSI/ASTM D698 Tests for Moisture-Density Relations of Soils and Soil-Aggregate Mixture Using 5.5 lb (2.49 kg) Hammer and 12-inch (305 mm) Drop.
- C. ANSI/ASTM D1556 Density of Soil in Place by Sand-Cone Method.
- D. ANSI/ASTM D1557 Moisture-Density Relations of Soils and Soil-Aggregate Mixture Using 10lb (4.54 kg) Hammer and 18-inch (457 mm) Drop.
- E. Section 26 Aggregate Bases, Caltrans Standard Specifications, July 2002
- 4.03 <u>Tests:</u>
 - A. Tests and analysis of fill materials will be performed in accordance with ANSI/ASTM D1557. Contractor shall submit Certificate of Compliance for import fill materials.
 - B. Initial compaction testing shall be scheduled and paid for by the Owner. Retesting of areas failing initial tests shall be paid for by Contractor.

4.04 <u>Protection:</u>

- A. Protect excavations by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cavern or loose soil from falling into excavation. All trenches and jacking pits shall conform to Construction Safety Orders Sections 1504, 1539-1547 of Title B of the California Code of Regulations.
- B. Grade excavation top perimeter to prevent surface water run-off into excavation.

4.05 <u>Products:</u>

- A. Select Bed and Fill Materials:
 - Type I Type I material shall meet the quality requirements of Section 26-1.02B for Class 2 aggregate base of the Cal-Trans Specifications. No material shall be used as Type 1 bedding unless approved by MPUD. Grading of Type 1 bedding shall be as follows:

U.S. Standard Sieve	Percent Passing
1-1/4"	100%
3/4"	5%

2. Type II - Bedding: Material with sand equivalent of at least 35 per test method 217-E Caltrans Standards. The grading of Type II material shall be as follows:

Sieve Size	Percent Passing
No. 3/4"	100
No. 200	Not more than 10%

Decomposed granite meeting this gradation will be acceptable as Type II material. No material shall be used as Type II material without approval by M.P.U.D.

3. Concrete Slurry Backfill - Concrete slurry Shall be aggregate, cement and water proportioned either by mass or by volume. 186 pounds of cement shall be used for each cubic yard of material produced. The water content shall be sufficient to produce a fluid workable mix and be placed without segregation of aggregate. Evaporation of bleed water shall not result in shrinkage of more than 1/8" inch per foot (10.4 mm per m) The grading of aggregate material shall be as follows:

Sieve Sizes	Percentage Passing
37.5-mm {1-1/2"}	100
25-mm {1"}	80-100
19-mm {3/4"}	60-100
9.5-mm {3/8"}	50-100
4.75-mm {No. 4}	40-80
150-um {No. 100)	10-40

Common Fill Materials:

Β.

Native material free of debris and rock larger than 3 inches.

4.06 <u>Execution</u>:

A. Inspection:

1. Verify stockpiled fill to be reused is approved.

- B. Excavation & Bedding:
 - 1. Excavate uniformly to 4" to 6" below the bottom of pipe.
 - 2. Cut trenches sufficiently wide to enable installation of utilities and allow inspection. A minimum of 6" on each side of mains and 2"each side of 1" and 2" water service pipe shall be required.
 - 3. Hand trim excavation and leave free of loose matter. Hand trim for bell and spigot pipe joints.
 - 4. Remove lumped subsoil, boulders, and rock.
 - 5. Excavation shall not interfere with normal 45 degree bearing splay of foundations.
 - 6. Correct unauthorized excavation at no cost to Owner.
 - 7. Place bedding material and grade bedding to provide continuous contact with pipe bottom. Provide 2" clearance beneath pipe couplings and joints. Type II material compacted to 90 percent of maximum density per California Test method 216 shall be used for bedding. If groundwater is encountered, an additional 6" of Type I material shall be placed prior to the placement of Type II bedding.
- C. Backfilling (Common Fill Materials):
 - 1. Backfill trenches to contours and elevations. Backfill systematically, as early as possible, to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces. Backfill shall consist of Type II material compacted to 90% of maximum density to at least 12" above the top of the pipe. Backfill from 12" above the pipe to finish grade shall be as shown in the trench detail drawings. No rocks larger than 3" shall be allowed when native material is used for backfill . This material shall be compacted to 90% of maximum density.
 - 2. Place and compact select fill materials in continuous layers not exceeding 6" loose depth.
 - 3. Place and compact common fill material in continuous layers not exceeding 8" loose depth.
 - 4. Employ a placement method so not to disturb or damage pipe or utilities.

^{2.} Verify areas to be backfilled are free of debris, snow, ice, or water, and surfaces are not frozen.

5. Maintain optimum moisture content of backfill materials to attain required compaction density. Compaction of pipe bedding and backfill material by ponding or jetting will not be permitted.

6.

- 6. Leave stockpile areas completely free of excess fill materials.
- D. Backfilling (Concrete Slurry):
 - 1. Backfill trenches to contours and elevations. Backfill systematically, after compaction of bedding material (type II) over pipe is complete.
 - 2. Concrete slurry backfill shall be placed in a uniform manner that will prevent voids in, or segregation of, backfill

E. Backfilling (Type I and type II Materials):

- Backfill trenches to contours and elevations. Backfill systematically, as early as possible, to allow maximum time for natural settlement. Do not backfill over porous, wet or spongy subgrade surfaces. Backfill shall consist of Type II material compacted to 90% of maximum density to within 24" of final surface grade. Backfill from 24" below surface grade to 10" below surface grade shall be Type II material compacted to 95% of maximum density. Backfill from 12" below surface grade to the asphalt section shall be Type I material compacted to 95% of maximum density. Asphalt replacement shall be per Section 9.
- 2. Place and compact select fill materials in continuous layers not exceeding 6" loose depth.
- 3. Employ a placement method so as not to disturb or damage pipe or utilities
- 4. Maintain optimum moisture content of backfill materials to attain required compaction density. Compaction of pipe bedding and backfill material by ponding or jetting will not be permitted.
- 5. Remove surplus backfill materials from site. It is the contractor's responsibility to dispose of excess trench material.
- 6. Leave stockpile areas completely free of excess fill materials.
- F. Field Quality Control:
 - 1. Compaction testing will be performed in accordance with Section 6-3 Caltrans Standard Specifications, July 1002. Or "California Test" 216 or 231.
 - 2. If tests indicate work does not meet specified requirements, remove work, replace, and retest.

SECTION 5 - MATERIALS (GENERAL)

5.01 Portland Cement Concrete, Mortar and Grout

- A. All Portland cement shall be Type II conforming to ASTM Designation: C 150.
- B. Portland Cement Concrete
 - 1. All grading of aggregate, proportioning, mixing, placing, finishing and curing of Portland cement concrete shall comply with Section 90 of the State Specs. Classification as to class of concrete shall comply with Section 90-1.01 of State Specs.
 - 2. Combined aggregate grading limits shall be the one and one-half (1-1/2) inch maximum, or the three quarter (3/4) inch maximum as listed in Section 90-3.04 of the State Specs.
 - 3. No admixture of any nature shall be used in the mixing of Portland cement concrete without the expressed approved of the Manager.
- C. Mortar and Grout
 - 1. Mortar shall be composed of one part Portland cement and two parts sand by volume.
 - 2. Grout shall be composed of one part Portland cement and one and onehalf (1-1/2) parts sand by volume.
 - 3. All mortar and/or grout shall be proportioned and mixed so as to comply with Section 65-1.06A of the State Specs. No admixtures of any nature shall be used in the mixing of the mortar and/or grout without the expressed approved of the Manager.

5.02 <u>Reinforcing Steel and Wire Mesh</u>

- A. Steel reinforcement and/or mesh reinforcement shall be of size shown and be placed in concrete structures in accordance with the details as shown on the plans or Standard Drawings, or as directed.
- B. Bar reinforcement shall be intermediate grade or hard grade billet steel as specified in ASTM Designation: A615 or rail steel as specified in ASTM Designation: A616. Tie wire shall be No. 14 or No. 16 steel wire.

- C. Mesh reinforcement shall be a standard type of electrically welded wire fabric as specified in ASTM Designation: A185.
- D. All reinforcement steel and/or wire mesh shall be designed, fabricated, placed and supported in the forms, all in accordance with ACI 318 and ACI 315.

5.03 <u>Grey Iron Castings</u>

Cast iron used in the manufacture of manhole frames and covers, rodding and flushing inlets, curb inlets, grates, etc. shall comply with ASTM Designation: A48 Class 30. All cast iron castings shall be coated in accordance with Paragraph 9 ASTM Designation: A74. Covers and frame seats shall be machined to provide a true even fit, provide firm support and prevent rattling.

5.04 <u>Miscellaneous Iron and Steel</u>

All steel used in the manufacture of grates, frames, plates, anchors, etc. shall conform to ASTM Designation: A36. All metal castings and fabrications shall be constructed in accordance with the details on the plans or Standard Drawings. Finished members shall be true to line and free from twists, bends and open joints.

All welding shall be done in accordance with the requirements of the American Welding Society.

5.05 <u>Galvanizing</u>

Metal work which is to be galvanized shall be galvanized by the hot zinc dipped process after complete fabrication. Welding of members after galvanization will not be permitted. All galvanizing shall be in accordance with ASTM Designation: A153.

SECTION 6 - STRUCTURES

6.01 <u>Reinforced Concrete Structures</u>

- A. All reinforced concrete structures shall be constructed to line and grade and detail as shown on the plans or the Standard Drawings.
- B. Forms, Ties and Joints
 - 1. All forms shall conform to the shape, lines, and dimensions of the members as called for on the plans or drawings. Forms shall be adequately braced, tied and supported to support all of the imposed loads due to the placing of concrete.
 - 2. All concrete structures shall be formed on <u>both sides</u>. All reinforcing steel or embedded steel anchors or castings shall be firmly and accurately placed and supported in place with metal hangers, chairs or other satisfactory metal supports.
 - 3. Joints. Expansion and construction joints shall be located where shown on the drawings or approved by the Manager. Expansion joint filler material shall be preformed, non-extruding bituminous fiber conforming to ASTM Designation: D1751.
 - 4. Consolidation (vibration). All concrete shall be consolidated to the maximum density so that it is free from pockets of coarse-aggregate and voids around embedded material and form corners.
 - 5. Removal of forms. Concrete finish and repair forms shall be removed in such a manner as to insure the complete safety of the structure and cause a minimum of damage to the finish. All transition channels, inverts or any area over which water is to flow shall be smooth finished so as to cause a minimum of resistance to flow.

All repair of concrete structures such as rock pockets, voids or deformations shall be completed within twenty-four hours after form removal. All material and methods of concrete repairs shall be in accordance with the procedures of Chapter VII of the sixth edition of the Bureau of Reclamation Concrete Manual.

SECTION 7 - SANITARY SEWERS

7.01 <u>Design Standards:</u>

- A. Sanitary Sewers
 - 1. The following guide lines shall be followed in computing contributing sewage.
 - (a) The average family unit shall be four (4) persons per residential unit.
 - (b) The average daily discharge of domestic sewage shall be one hundred (100) gallons per day per person. Design discharge shall be one and one-half (1-1/2) times this or one hundred fifty (150) gallons per day per person for peak discharge.
 - (c) Infiltration allowances will be six hundred (600) gallons/acre served/day, or between two hundred fifty (250) and five hundred (500) gallons/day/inch diameter/mile of sewer.
 - (d) Depth of flow in main and trunk sewers:

Main sewers up to fifteen (15) inches inside diameter shall be designed to flow five tenths (0.5) full. Trunk or main sewers over fifteen (15) inches inside diameter may be designed to flow seven tenths (0.7) full.

NOTE: Under no condition is a gravity sewer ever to be designed to flow under a head.

2. Sewer Velocity and Quantities

Minimum design velocity for any sanitary sewer shall be two (2) feet per second for pipes flowing full or half full.

Except in extreme cases, maximum design velocities for sanitary sewers shall not exceed ten (10) feet per second. Velocities in sanitary sewers shall be computed using Manning's formula with a constant "N" value depending upon type of pipes used.

3. Maximum Discharge

Since sanitary sewers are to be designed with <u>no</u> head on the inlet, the maximum design discharge shall not exceed the flow at critical slope and velocity, due to the unstable flow conditions at critical slope and critical velocity sanitary sewers <u>should not</u> be designed for these conditions, but a maximum design discharge shall not exceed flow under these conditions regardless of greater slope.

- B. Manholes
 - 1. Manholes shall be placed at the intersections of all main sewer lines.
 - 2. Manholes shall be placed at all changes of alignment either vertical or horizontal.
 - 3. The maximum distance between manholes shall be three hundred fifty (350) feet.
 - 4. A one tenth (0.1) foot energy drop shall be allowed for flow through manholes.
 - 5. Invert elevations of varying size pipes leading into and out of manholes shall be set by matching the total energy gradients of the pipes.
- C. Drop Manholes

Whenever the vertical distance between the inverts of lines connection of a manhole exceed eighteen (18) inches, a standard drop manhole shall be constructed.

D. Rodding and Flushing Inlets

Rodding and flushing inlets shall be constructed at the end of all sewer mains.

- E. Sewer Line, Location, Alignment, Cover and Size
 - 1. Location

All sanitary sewers and appurtenant structures shall be located as close to the roadway center line as practical. In no case shall a sanitary sewer line be located closer than two (2) feet from an existing or proposed gutter lip. Sanitary sewer lines shall be laid out on the opposite side of the roadway centerline from the water lines. The entire sanitary system shall be located as mentioned above and shall be designed to clear all other existing or proposed utilities by twelve (12) inches.

2. Cover

Minimum and maximum cover for any sewer line shall be three (3) feet and eight (8) feet, respectively. Any deviation from this cover shall require special design and approval by the Manager.

3. Size

Minimum line size for any sewer main shall be eight (8) inches inside diameter.

F. Laterals and/or Side Sewers, Cleanouts, Backflow Preventers.

Minimum size of any sanitary lateral or side sewer to serve individual residences, commercial structures, etc., shall be four (4) inches. Actual size of laterals larger than four inches shall be determined by fixture unit requirements as per the current edition of the Uniform Plumbing Code.

Each sanitary sewer lateral shall have a cleanout at the property line, or roadway or sewer main easement, as per Standard Drawings.

Each structure with installed plumbing at an elevation such that there could be a backflow of sewage from the main, in case of a main stoppage, shall be equipped with a backflow preventer or an overflow device installed in the lateral behind the property line.

G. Special Design

Special structures, such as pump stations, pressure lines and sags, etc., shall require special considerations and approval by the Manager.

7.02 <u>Materials and Installation</u>

A. General

All material that is to become a permanent part of any sanitary sewer or appurtenant structure shall conform to the requirements for the particular material as set forth in these Specifications. The contractor shall supply any and

all certificates of compliance, certified test results or shall perform tests as required to assure the Manager that the material being incorporated into the work has met the requirements as specified. Request to use materials not listed in these Standards shall require special consideration and approval by the Manager.

B. Pipe and Pipe Joining Material

All pipe or conduits shall be of the size, material and strength as shown on the plans. All pipe fittings shall be marked or stamped with the trade brand name of the manufacturer, and strength or class of pipe. All pipe shall be designed to withstand all internal or external loads applied.

Supporting strength of conduits as installed to safely carry imposed gravity loads and superimposed loads (including a suitable factor of safety) shall be determined by use of Marston's formula as per Chapter IX (Structural Requirements) ASCE Manual of Engineering Practice No. 37. All pipe or conduits shall be of the same material between structures.

- 1. Cast Iron Pipe and Fittings
 - (a) All cast iron pipe and fittings for main sewers shall be at least Class 150 and conform to AWWA Standards C 106-75. Joints shall be approved type mechanical joints. No lead joints will be allowed.
 - (b) Cast iron pipe and fittings for laterals within the public right of way shall be new first quality and conform to AWWA Standards C 106-75, Cast Iron Soil Pipe and Fittings.
 - (c) Concrete Lined and Ductile Iron Pipe CL and DI shall be cement mortar lined in accordance with AWWA Standards C 104-74.
- Polyvinyl Chloride Pipe and Fittings PVC pipe and fittings shall conform to ASTM Designations: D3034, D2564, D2665, D2729 and F679 and to SDR 35 or SDR 26. Pipe installed at greater than eight foot requires special engineering submittal and MPUD approval. Pipe showing signs of sunburn and/or discoloration will not be accepted.
- C. Manholes

All manholes shall be water tight structures and shall have Polypropylene steps from top to bottom. Manholes shall be constructed to grade as shown on the

plans and shall be constructed to detail as shown on the Standard Drawings. Precast reinforced concrete manhole risers and tops shall conform to ASTM Designations: C478. Pre-cast tops shall be the eccentric cone type. All cement used in the construction of concrete manholes shall be Type II and conform to ASTM Designation: C150. All joints in manhole sections shall be sealed with Bentonite Clay Waterstop then grouted smooth.

7.03 <u>Final Acceptance:</u>

A. Cleaning

Prior to acceptance of any sewer line by MPUD the contractor shall clean all lines with a Wayne-type sewer cleaning ball under hydrostatic pressure. Any stoppage, dirt or foreign matter shall be removed from the lines. All cleaning and testing of sewer lines shall take place after all construction work is completed, up to but not including the final paving. The system will be inspected after final paving is completed and any damage to the system during final paving and cleanup will be corrected before acceptance.

B. Testing Sewer Mains

Mandrell Test

A rigid eight-vane mandrell shall be pulled through all line segments that have an upstream and downstream manhole or flushing inlet. A line segment which has a deflection equal to or greater than 7-1/2% of the base inside dimension shall be replaced. The base inside diameter and maximum 7-1/2% deflection is as follows:

Nominal	Base Inside	7-1/2%
Size	Diameter	Deflection
6"	5.742"	5.31"
8"	7.665"	7.09"
10"	9.563"	8.84"
12"	11.361"	10.51"

Prior to final acceptance all sewer lines shall be tested for leakage by use of the low pressure air test. The test shall be performed using the following procedures and under the observation of an MPUD representative. Prior to testing, all pipe shall be flushed clean or other approved cleaning methods shall be used to assure pipe contains no debris of any nature (see A above).

After a manhole-to-manhole reach of pipe has been backfilled and cleaned, the pneumatic plugs shall be placed in the line at each manhole and inflated to 25 psig. Low pressure air shall be introduced into this sealed line until the internal air pressure reaches 4 psig. At least two minutes shall be allowed for the air to stabilize.

After the stabilization period (3.5 psig minimum pressure in the pipe), the air hose from the control panel to the air supply shall be disconnected. The portion of the line being tested shall be termed acceptable if the time required in minutes for the pressure to decrease from 3.5 to 2.5 psig minutes is not less than the time shown for the given diameters in the following table:

Pipe Diameter* Lengths (Inches)	Minimum Length for Time Min.Time* (Min.Sec.) (Feet)		Addl. Time for Longer Pipe Sections (Seconds)
6	2:50	0-398	0.427 x Length in feet
8	3:47	0-298	0.760 x Length in feet
10	4:43	0-239	1.187 x Length in feet
12	5:40	0-199	1.709 x Length in feet

* Main line pipe diameter and main line length (manhole-to-manhole). Main line sections of pipe being tested shall also include all house service laterals for each section, but no additional length or time will be allowed for the house service lines.

All testing and cleaning equipment shall be supplied by the contractor.

A. Testing Manholes

Completed manhole structures shall be tested by the contractor for water tightness before acceptance by the District.

Exfiltration from manholes in excess of one-half $(\frac{1}{2})$ gallon per twenty-four hours will not be permitted and any such seepage shall be repaired by the contractor at his expense.